USER MANUAL
OpenCube ENGSoft

Version 1.7 - May 2014

ENGSoft.

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1. Revision History

Document Version	Revision Date	Change Description
1.7.A	28-May-2014	Updated User Guide to OpenCube ENGSoft 1.7

2. What's New

The following table describes the sections updated to reflect the new and modified features in OpenCube ENGSoft.

In the user manual, the NEW ! icon has been added on the left margin to highlight information on new and updated features.

New features	Section	Page
Ingest consolidation list module	11.17.3	83
Support for Panasonic AJ-MPD1 devices.	4	13

3. Installation

3.1. Hardware Requirements

ENGSoft can be installed on the following hardware configurations:

Recommended hardware configuration	Minimum hardware configuration
• Intel Xeon six core @ 3,46 GHz • 4GB RAM • Windows 7 64bits • HDD 150GB SATA 10000 rpm • NVidia® graphic board recommended • DirectX 10	• Intel Core2 quad @ 2.4 GHz • 2GB RAM • Windows XP SP3 32bits • HDD 50GB SATA 7200 rpm • NVidia® graphic board recommended • Minimum screen resolution of 1280x1024 • DirectX 9.0

Warning
ENGSoft is not compatible with systems with more than 16 CPU cores.

3.2. Supported Operating Systems

ENGSoft can be installed on the following operating systems:

- Windows XP 32/64bits
- Windows Vista 32/64bits
- Windows 7 32/64bits
- Windows 8 32/64bits

ENGSoft is UAC compliant for OS that support it; no administrative rights are required to run the application. Note that you must have administrative rights to run the installer.

3.3. Installation

All the installers are located under `%ENGSOFT_PACKAGE%\Windows\ENGSoft`.

Be sure to unzip all the installation files and folders before launching the setup process.

The installation directory contains six installation packages:

- `Setup.exe`: The ENGSoft main installer.
- `p2driver_win32_v216.zip`: Panasonic P2 driver for Windows 32bits OS.
- `p2driver_win64_v216.zip`: Panasonic P2 driver for Windows 64bits OS.
- `XDCAM-FAMDriver-v2.30-SS03GF.zip`: Sony PDW 1500 and PDW HD1500 drivers.
- `PDW-U2-U1-3.2.exe`: Sony PDW-U1 and PDW-U2 drivers for Windows.
- `SBACUS10-PMW500-1.0.2SS03PM_1.zip`: Sony SBAC US-10 driver.

On Windows Vista and later, the administrator's consent is required to launch `Setup.exe`.

Double-click on `Setup.exe` to start the ENGSoft installation, and let the installation wizard guide you. Any previous installation of ENGSoft will be prompted for uninstall if necessary. Once ENGSoft is installed on your machine you can install the Manufacturer driver(s) corresponding to your device(s) if needed. You may have to restart your computer at that point.

Note
To use ENGSoft with Avid® Interplay, please check that Interplay Web Services are properly installed on your Avid® system. ENGSoft is compatible with Avid® Interplay v2.0 - 3.0 and Interplay Web services v1.4.1 - 3.0. If you have a different version of Interplay or Interplay Web Services, please contact support.opencube@evs.com.

Warning
It is recommended that you check the compatibility between the manufacturer driver(s) provided and the firmware version of your device. The drivers provided by the manufacturers are generally the latest versions available at the time ENGSoft was released. If you have a newer or certified version you can use it.

4. Introduction

OpenCube ENGSoft is an easy-to-use tool for ingesting ENG SD/HD materials to various storage targets such as AVID® Interplay, P2/XDCAM compliant targets, straight OP1A MXF files, and more. With OpenCube ENGSoft, you can ingest your daily footage in a cost and time effective manner.

Supported input formats	Supported input devices
Sony XDCAM optical IMX 30/40/50Mbps	Sony PDW-HD1500 (Firewire 400)
Sony XDCAM optical DV	Sony PDW-1500 (Firewire 400)
Sony XDCAM optical HD422 – 50Mbps	Sony PDW-U1 (USB 2.0)
Sony XDCAM optical HD420 - 35Mbps	Sony PDW-U2 (USB 3.0)
Sony XDCAM SxS IMX 50Mbps	Sony e-VTR MSW-A2000P (FTP)
Sony XDCAM SxS DV	Sony SBAC US10 (USB 2.0)
Sony XDCAM SxS HD422 - 50Mbps	Sony SBAC US20 (USB 3.0)
Sony XDCAM SxS HD420 - 35Mbps	Sony camcorders (USB 2.0)
Sony XDCAM compatible files	Panasonic AJ-PCD10 (USB 2.0)
Panasonic P2 DV25/DV50/DV100	Panasonic AJ-PCD20 (USB 2.0, Firewire 800)
Panasonic P2 AVC-Intra 50/100Mbps	Panasonic AJ-PCD2 (USB 2.0)
Sony e-VTR over FTP	Panasonic AJ-PCD35 (PCIe)
Canon MPEG2 HD422 LongGop 50Mbps	Panasonic AJ-PCD30 (USB 3.0)
	Panasonic AJ-MPD1 (USB 3.0)
	Manually mounted removable media

5. Getting Started

The first time you use OpenCube ENGSoft, you will have to configure some of the settings, such as license validation and one time configuration.

5.1. License Installation

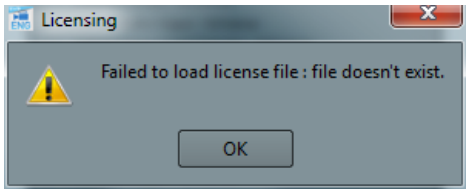


Figure 1: No license found at startup

At the first startup of OpenCube ENGSoft, a popup will inform you that no valid license has been found for your version. Click on the **[OK]** button.

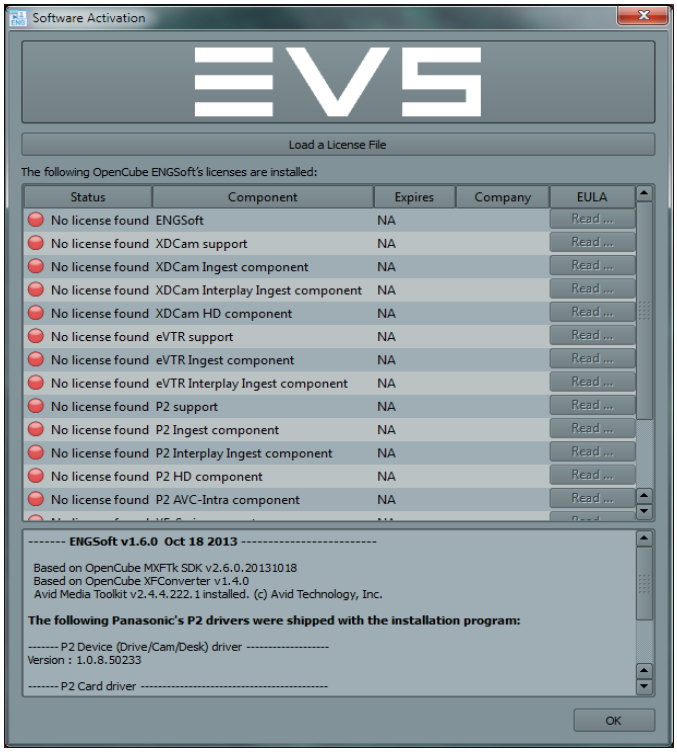

Software Activation
Load a License File
The following OpenCube ENGSoft's licenses are installed:
Status
Component
Expires
Company
EULA
No license found ENGSoft NA Read ...
No license found XDCam support NA Read ...
No license found XDCam Ingest component NA Read ...
No license found XDCam Interplay Ingest component NA Read ...
No license found XDCam HD component NA Read ...
No license found eVTR support NA Read ...
No license found eVTR Ingest component NA Read ...
No license found eVTR Interplay Ingest component NA Read ...
No license found P2 support NA Read ...
No license found P2 Ingest component NA Read ...
No license found P2 Interplay Ingest component NA Read ...
No license found P2 HD component NA Read ...
No license found P2 AVC-Intra component NA Read ...
------- ENGSoft v1.6.0 Oct 18 2013 ----------
Based on OpenCube MXFTk SDK v2.6.0.20131018
Based on OpenCube XFConverter v1.4.0
Avid Media Toolkit v2.4.4.222.1 installed. (c) Avid Technology, Inc.
The following Panasonic's P2 drivers were shipped with the installation program:
------- P2 Device (Drive/Cam/Desk) driver ----------
Version : 1.0.8.50233
------- P2 Card driver ----------
OK

Figure 2: About box - no license yet installed

The ENGSoft-About dialog box will then be displayed allowing you to install the license.

Click on the **[Load a license file]** button and select the license file you want in the directory `%ENGSOFT_PACKAGE%\ENGSoft\Licenses`.

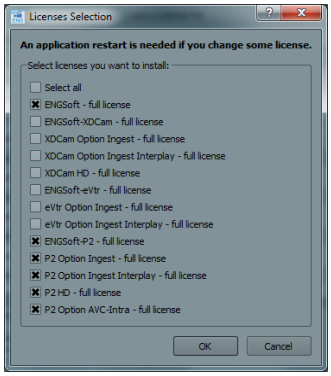

Licenses Selection
An application restart is needed if you change some license.
Select licenses you want to install:
Select all
ENGSoft - full license
ENGSoft-XDCam - full license
XDCam Option Ingest - full license
XDCam Option Ingest Interplay - full license
XDCam HD - full license
ENGSoft-eVtr - full license
eVtr Option Ingest - full license
eVtr Option Ingest Interplay - full license
ENGSoft-P2 - full license
P2 Option Ingest - full license
P2 Option Ingest Interplay - full license
P2 HD - full license
P2 Option AVC-Intra - full license
OK
Cancel

Figure 3: License installation choice dialog box

Select the options you want to install.

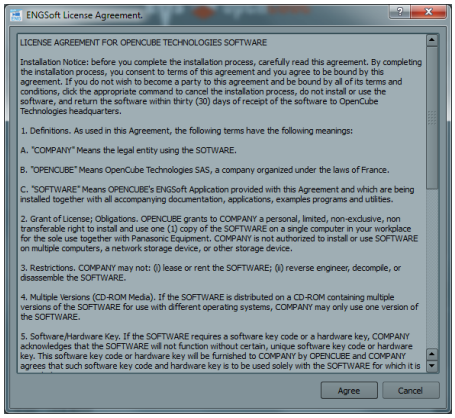


Figure 4: A EULA is displayed for each individual installed license

A license agreement corresponding to each option will be displayed. You must accept the terms of each individual license in order to enable the option.

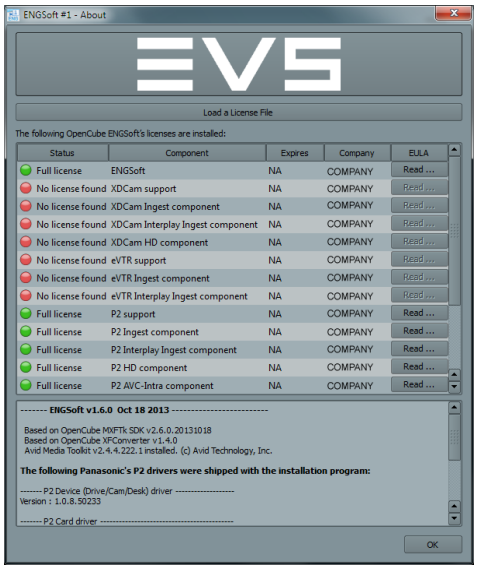

ENGSoft #1 - About
Load a License File
The following OpenCube ENGSoft's licenses are installed:
Status
Component
Expires
Company
EULA
Full license ENGSoft NA COMPANY Read ...
No license found XDCam support NA COMPANY Read ...
No license found XDCam Ingest component NA COMPANY Read ...
No license found XDCam Interplay Ingest component NA COMPANY Read ...
No license found XDCam HD component NA COMPANY Read ...
No license found eVTR support NA COMPANY Read ...
No license found eVTR Ingest component NA COMPANY Read ...
No license found eVTR Interplay Ingest component NA COMPANY Read ...
Full license P2 support NA COMPANY Read ...
Full license P2 Ingest component NA COMPANY Read ...
Full license P2 Interplay Ingest component NA COMPANY Read ...
Full license P2 HD component NA COMPANY Read ...
Full license P2 AVC-Intra component NA COMPANY Read ...
------- ENGSoft v1.6.0 Oct 18 2013 ----------
Based on OpenCube MXFTk SDK v2.6.0.20131018
Based on OpenCube XFConverter v1.4.0
Avid Media Toolkit v2.4.4.222.1 installed. (c) Avid Technology, Inc.
The following Panasonic's P2 drivers were shipped with the installation program:
------- P2 Device (Drive/Cam/Desk) driver ----------
Version : 1.0.8.50233
------- P2 Card driver ----------
OK

Figure 5: Recap of installed licenses is updated

The list of licenses in the About dialog box is updated according to the options installed.

Note
You can change the installed options later by re-opening the dialog box.

5.2. Login

The login window will appear. Enter your name and click on **[OK]**. You can use any one word as a user name as long as it does not contain any special characters. Your user name will be validated interactively as you type it in.

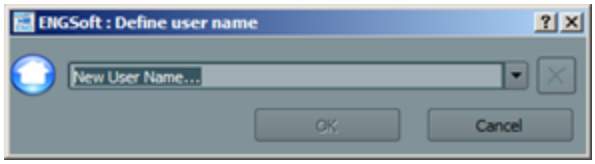


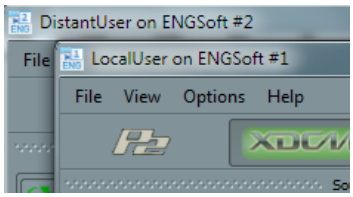
Figure 6: ENGSoft login

Once you have created a new login, you can log on to OpenCube ENGSoft later without prompting your login. You can do this by using the **-u** switch in a command line, for example: "C:\Program Files\EVS Broadcast Equipment\OpenCube ENGSoft\bin\ENGSoft.exe -uMyLogin".

5.3. Multiple Instance Support

OpenCube ENGSoft supports the opening of up to two instances on a machine at the same time. Although the application does not perform any checking on the logins used for each session, it is strongly advised that you use separate identities and different hardware for each session.

Various visual hints allow you to identify the two sessions:



The application window icon and title specifies the instance number.

The tray icon and information balloons also inform you of the instance number.

5.4. Configuring the Interplay Connection

If a valid Interplay ingest component license is already installed, the software will ask you at startup to configure the Interplay connection.

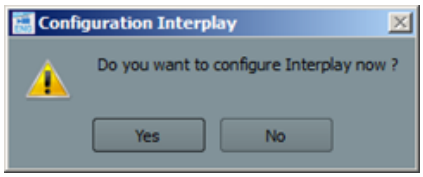


Figure 7: Ask to configure Interplay

If you click on **[Yes]**, the “Interplay Configuration” dialog box is displayed. If you do not want to configure Interplay at that time, or if the computer is not connected to Interplay at the moment, click on **[No]**. You can configure the Interplay connection later via the menu

[Options > Configure Interplay]. Until the Interplay connection is properly configured, ingest on Interplay targets cannot be performed. You can configure the Interplay connection at any time.

The “Server” area contains the information required to connect to the Interplay web service.

The “Authentication” area contains the login/password to connect to the Interplay web service.

“Avid Shared Storage” is where you add the URI(s) of your AVID workspaces to the list of favorites.

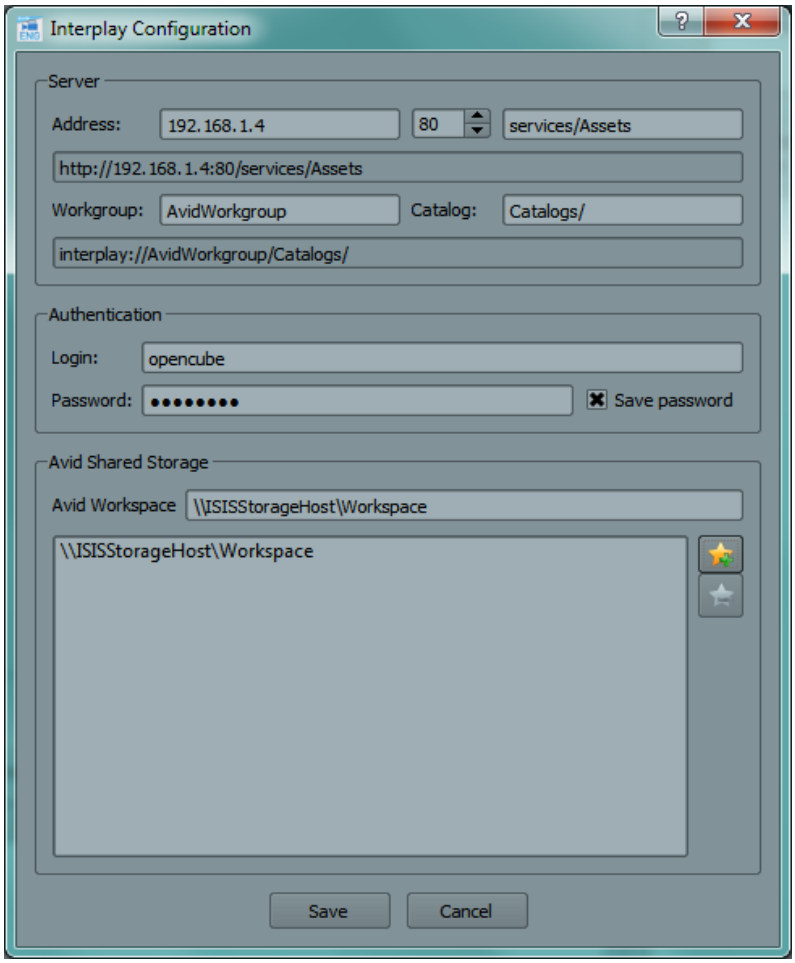


Figure 8: Interplay Configuration panel

Configuring the Avid Unity storage

Type in the URI of the workspace in the "Avid Workspace" zone in the form "`\\StorageMachine\Workspace`".

You can then add it to the favorite links list via the button.

Click on **[Save]** to accept the configuration.

Note
The favorite links will be used later to configure the Interplay destination subjects.

ENGSoft checks your configuration before closing the window. If the connection to Interplay failed or if the configuration is incorrect the following message will appear:

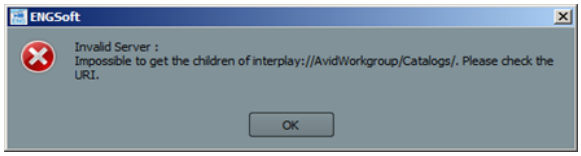


Figure 9: Failed to connect to Interplay

Warning
If the configuration check fails after clicking **[Save]**, all the fields are reset to their default values.

5.5. Configuring the IPDirector Connection

The IPDirector configuration panel can be accessed via the system menu **[Options > Configure IPDirector]**.

The “Server” area contains the information required to connect to the IPDirector web service.

- The "Address" field should be filled in with the IP address or the host name of the IPDirector web service server.
- The TCP port is 31016 by default. Unless it is configured otherwise on the server side it should not be modified.
- The field on the far right is the name of the web service access page and should not be modified.

The “Authentication” area contains the login/password to connect to the IPDirector web service. If you do not check the "Save password" box, you will have to type in your credential again at the next startup of OpenCube ENGSoft.

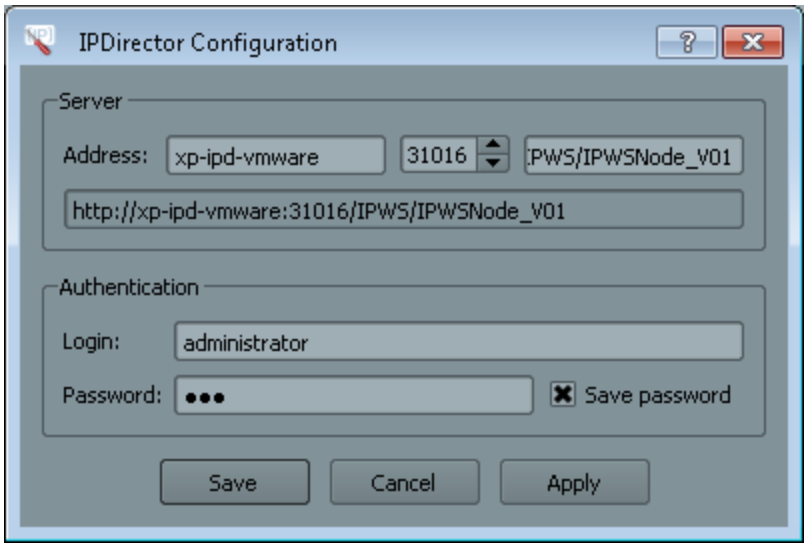


Figure 10: IPDirector configuration panel

6. Application Overview

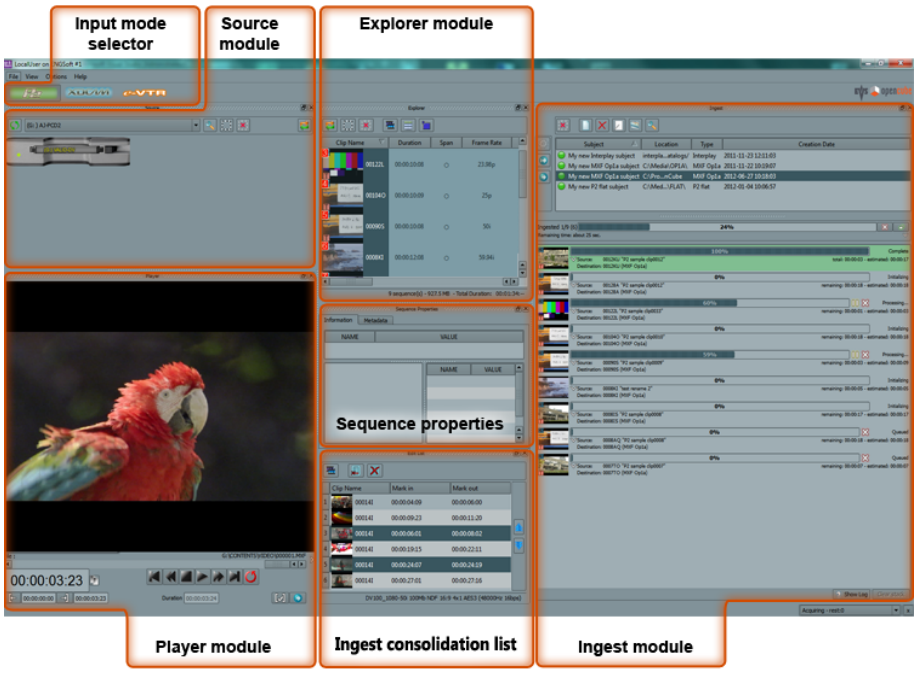


Figure 11: OpenCube ENGSoft main window

This is the default layout of the application. The features are divided into modules; you can rearrange the layout to your liking.

The input selector toolbar is on the top of the window, below the system menu. It is used to switch between available manufacturers devices. Once you switch the mode, the entire content will be reset according to the new input mode, except for the ingest stack which is not affected and will keep on ingesting.

The source module allows you to switch between source devices for the current manufacturer. You can switch between real and virtual mode. The virtual mode allows you to map any URI to a supported source. In real mode you can configure unrecognized devices manually.

The explorer module displays the content of the selected source. You can customize the way in which the information is displayed in the explorer pane.

NEW ! The ingest consolidation list module allows you to create and modify a list of sequences to be consolidated together.

The sequence properties pane displays the metadata and MXF properties of the sequence that is currently selected in the explorer.

The player module allows you to view any supported type of media and to set in/out marks to define the subclips to ingest.

The ingest module is divided into two parts:

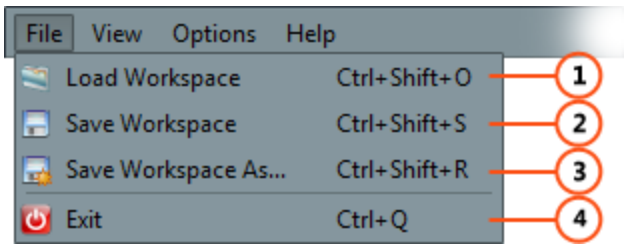
- The destination list which allows you to configure the destinations on which you want to ingest.
- The ingest stack which displays the status and progression of all items sent to ingest. You can pause/cancel/rearrange ingest items at your convenience. You can mix any type of ingest items in the ingest pile.

7. System Menu & Tray Icon

7.1. System Menu

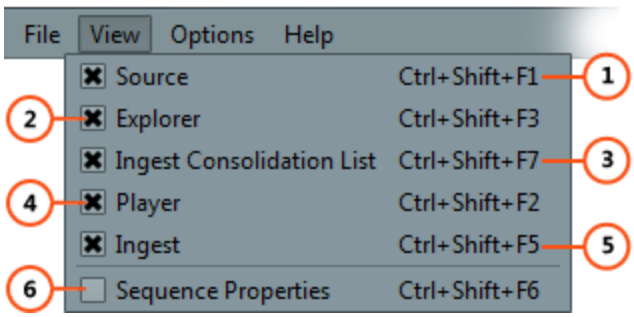
You will find all of the application's general commands in the system menu.

The **[File]** *menu summarizes all load/save operations. It can also be accessed by right-clicking on the system tray icon.*



Part	Description
1	Loads a main layout configuration file. The main layout configuration includes the position and visibility of the various modules and the main window.
2	Saves a main layout configuration file. The default workspace file "`DefaultWorkspace.ews`" is automatically saved at application closure.
3	Saves a named main layout configuration file.
4	Quits the application.

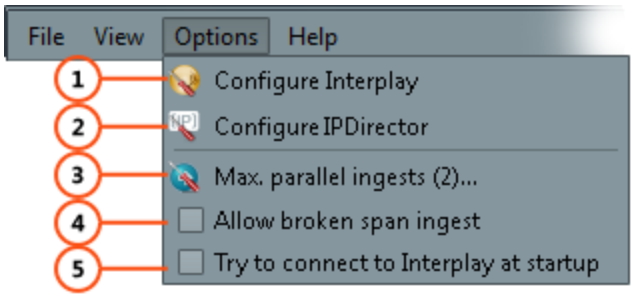
The **[View]** *menu allows you to display the various modules. It can also be accessed by a right-click in an empty zone of the main window.*



Part	Description
1	Shows/hides the source module.
2	Shows/hides the explorer module.

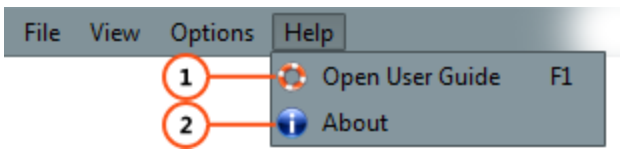
Part	Description
NEW ! 3	Shows/Hide the ingest consolidation list module.
4	Shows/hides the player module.
5	Shows/hides the ingest module. This action is available only if you have installed a valid ingest license for the current mode.
6	Shows/hides the sequence properties panel.

The **[Options]** *menu allows you to configure Interplay and ingest options.*



Part	Description
1	Opens the Interplay configuration dialog box.
2	Opens the IPDirector configuration dialog box.
3	Opens a dialog to specify the maximum number of simultaneous ingests the Ingest stack is to perform. The number ranges from 1 to 6. The default value is 2. **Warning** Only 1 XDCAM ingest can be performed at a time from real optical devices.
4	Specifies whether or not the ingest of a broken span is allowed. If a broken span ingest is allowed, a warning will be displayed by the ingest item. If a broken span ingest is not allowed, it will raise an error if you launch the operation. This option is meant to focus attention on the issue of ingesting broken span.
5	If checked, the application will try to connect to the Interplay server at startup.

The **[Help]** *menu gives you access to the User guide and About box*



Part	Description
1	Opens the User Guide.
2	Opens the About box where you can review the installed version of the application and its components, and update the application licenses.

7.2. System Tray Icon

When OpenCube ENGSoft is running, an icon is installed in the system tray.

Figure 12: OpenCube ENGSoft icon in the system tray

If you right-click on this icon it will display the file menu. If you double-click on the icon, it will minimize/restore the main application window even if a blocking action such as auto-ingesting is being performed.

The system tray icon shows the status of the application.

Icon	Description
	The application is running.
	The application is currently processing ingests.
	At least one error occurred during ingest.

The system tray icon tooltip informs you of the progress of the ingest thread.

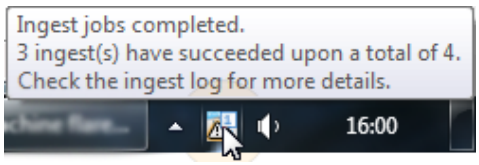


Figure 13: OpenCube ENGSoft system tray tooltip

Notifications appear when errors or warnings are raised, and also on simple notifications if the application has been minimized. An ingest summary is displayed at the end of the ingest thread.

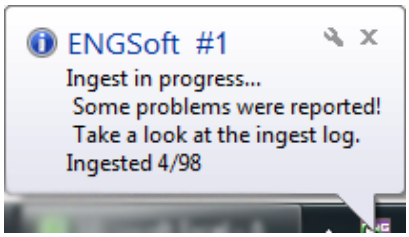


Figure 14: System tray info notification

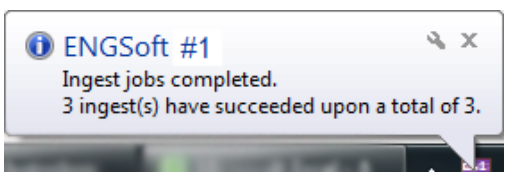


Figure 15: Ingest end notification to the system tray

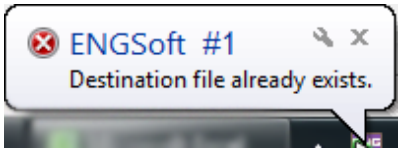


Figure 16: System tray error notification

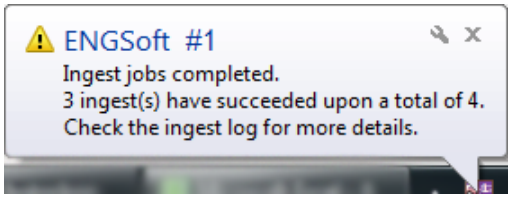


Figure 17: Ingest end notification to the system tray (with error)

If the application window has been minimized, you can restore it by clicking on the notification balloon.

8. Input Selector

The input selector bar allows you to toggle between the available manufacturers devices. By switching to a given mode, you switch either the source and destination selectors.

Figure 18: Four manufacturer's devices are supported and enabled

Button appearance	Description
	A grayed out device tool button means that the device is not available. Install the corresponding OpenCube ENGSoft option to make it available.
	This default device tool button display means that this particular type of device is available but that no compatible devices have yet been detected. Compatible devices will be automatically detected once they are plugged in to your machine.
	When the device tool button is highlighted in blue, it means that compatible devices have been detected and are ready for use.
	When the device tool button is highlighted in green, it means that this is the currently selected mode, whether the devices are available or not.

OpenCube ENGSoft 1.7 handles Panasonic P2, Sony XDCAM (either optical and SxS devices), Sony e-VTR and Canon XF-Series sources.

9. Source Module

9.1. Overview

The source module supports two operating modes called the **Real** and the **Virtual** modes. Real mode operates on real physical devices whereas the virtual mode allows you to specify a local or remote folder as a source subject. To switch between Real and Virtual mode, click on the button.

9.2. Supported MXF files

The ENGSoft source module handles MXF files. The MXF files are of different operational pattern and flavor, depending on the manufacturer supported. OpenCube ENGSoft 1.7 supports:

- Panasonic P2 OP-Atom MXF files;
- Files compliant with Sony XDCAM OP-1a MXF files;
- Sony e-VTR MXF files;
- Canon XF-series OP-1a MXF files.

Video codecs, rasters and audio tracks are described in the chart below:

Device type	Video format	Raster size	Frame rate	Audio layout
P2	DV25	SD NTSC	59.94i	2/4 AES3 1ch 16b
	DV25	SD PAL	50i	2/4 AES3 1ch 16b
	DV50	SD NTSC	59.94i	2/4 AES3 1ch 16b
	DV50	SD PAL	50i	2/4 AES3 1ch 16b
	DV100	1920 x 1080	50i, 59.94i	4/8 AES3 1ch 16b
	DV100	1280 x 720	50p, 59.94p, 29.97p, 25p, 23.98p	4/8 AES3 1ch 16b
	AVC-Intra 100	1920 x 1080	50i, 59.94i, 29.97p, 25p, 23.98p	2/4/8 AES3 1ch 16b
	AVC-Intra 100	1280 x 720	50p, 59.94p, 29.97p, 25p, 23.98p	2/4/8 AES3 1ch 16b
	AVC-Intra 50	1440 x 1080	50i, 59.94i, 29.97p, 25p, 23.98p	2/4/8 AES3 1ch 16b
	AVC-Intra 50	1280 x 720	50p, 59.94p, 29.97p, 25p, 23.98p	2/4/8 AES3 1ch 16b
XDCAM	DV25	SD NTSC	59.94i	4 AES3 1ch 16b
	DV25	SD PAL	50i	4 AES3 1ch 16b
	IMX 30/40/50	SD NTSC	59.94i	1 AES3_8 4ch 24b or 1 AES3_8 8ch 16b
	IMX 30/40/50	SD PAL	50i	1 AES3_8 4ch 24b or 1 AES3_8 8ch 16b
	HD422 50Mbps	1920 x 1080	50i, 59.94i, 25p, 29.97p	8 AES3 1ch 24b
	HD422 50Mbps	1280 x 720	50p, 59.94p	8 AES3 1ch 24b
	HD420 35Mbps	1440 x 1080	50i, 59.94i, 25p, 29.97p	4 AES3 1ch 16b
	HD420 35Mbps	1280 x 720	50p, 59.94p	4 AES3 1ch 16b
e-VTR	IMX 30/40/50	SD NTSC	59.94i	1 AES3_8 4ch 24b or 1 AES3_8 8ch 16b
	IMX 30/40/50	SD PAL	50i	1 AES3_8 4ch 24b or 1 AES3_8 8ch 16b
XF-series XF100 - XF300 - C300	HD422 50Mbps	1920 x 1080	50i, 59.94i, 25p, 29.97p	2/4 AES3 1ch 16b
	HD422 50Mbps	1280 x 720	50p, 59.94p	2/4 AES3 1ch 16b

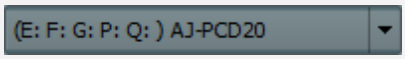
Note
MXF files whose format is not on the list above will be filtered out when you browse a source subject.
Consequently a subject containing no compatible MXF files will be considered empty.

9.3. Real Mode

In real mode, the source module allows you to browse any supported type of source device. It also allows you to configure any removable media as a compatible source.

Note
There are no registered Canon XF-Series card readers. You have to configure Canon XF-Series CF card readers manually.

Figure 19: Source module (P2 mode)

Button	Description
	The combo box in the source module displays the drives that are recognized and currently connected.
	The configure button allows you to configure an unrecognized device.
	The 'Select all' button selects all the available media in the current device.
	The 'Unselect all' button unselects all of the current device's media at the same time.
	The 'Delete current device' lets you delete a manually configured device from the available device list.
	The 'Refresh' button restarts the entire device detection process. It is advisable to force the detection of devices that have not yet been recognized and to cleanup all cached information.
	The toggle button used to switch to virtual mode.

To browse a medium in the explorer, select a device in the source module's device drop-down list and click on the medium icon.

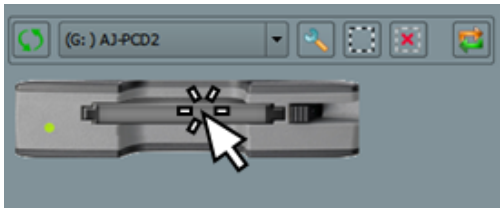


Figure 20: Source Module: browsing a P2 medium

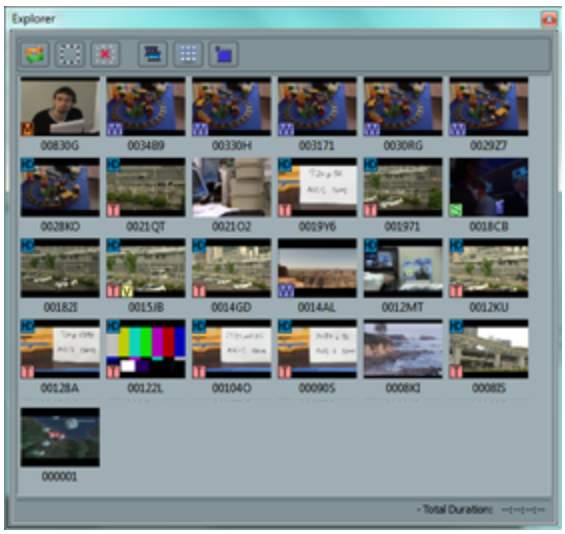


Figure 21: P2 content in the explorer module

Figure 22: Source Module: browsing a XDCAM medium

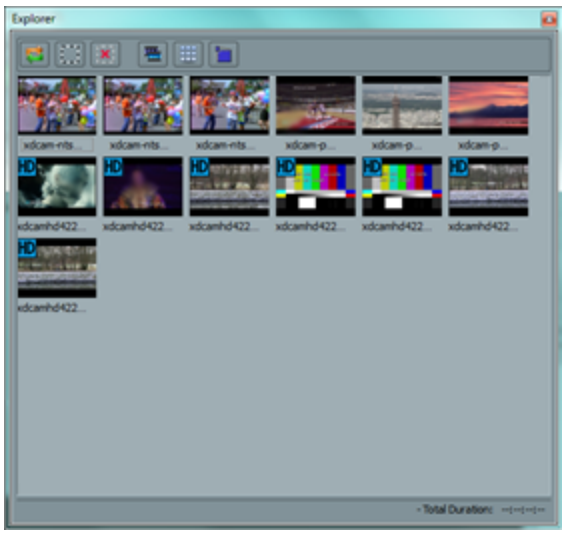


Figure 23: XDCAM content in the explorer module

9.3.1. Manual Configuration

If your device is not listed in the combo box, you can configure the removable media manually by clicking on the button. The “Select device type” window is displayed.

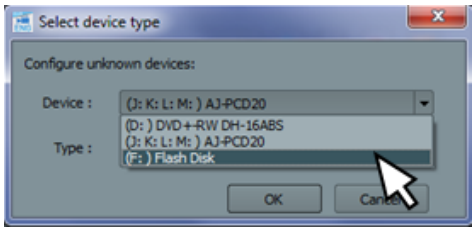


Figure 24: Source Module - manual configuration

Choose one from among the unrecognized devices and assign it a type of device to emulate, and then click OK.

Warning
The file system on the removable media must comply with that on the emulated device in order to work properly. For example, a fully compliant CONTENTS folder must be present on a P2 emulated device as well.

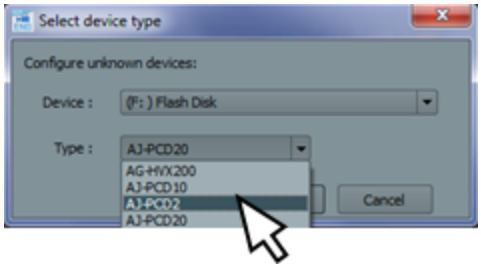


Figure 25: Manual configuration P2 mode

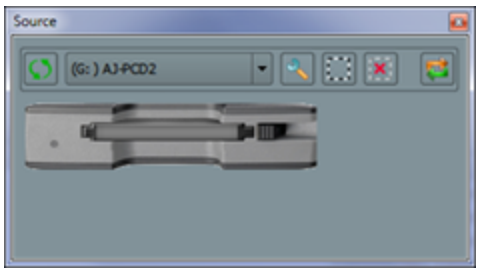


Figure 26: Resulting emulated P2 device

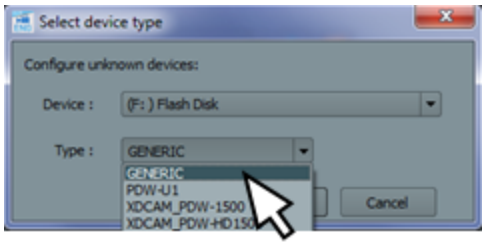


Figure 27: Manual configuration XDCAM mode

Figure 28: Resulting generic XDCAM device

9.3.2. e-VTR Source

OpenCube ENGSoft uses the FTP connection to browse and ingest tapes on e-VTR devices.

As Sony e-VTR devices are accessible via FTP connection and thus are not plug and play devices, the e-VTR source configuration is slightly different from that of other sources.

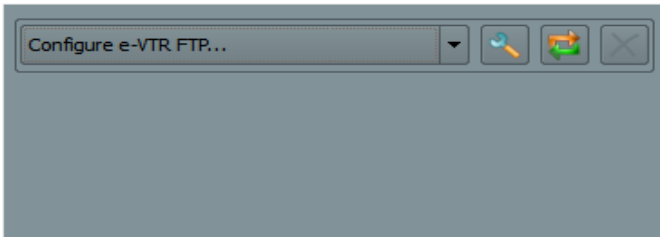


Figure 29: e-VTR source module

In e-VTR mode, sequences cannot be played back and auto-ingest is not available.

To configure e-VTR, click on the button. The "Configure e-VTR - FTP connection" window appears. You have to fill in each field:

- Alias: name displayed in the combo box;
- FTP Address: IP address of the e-VTR;
- Port: FTP port of the e-VTR (21 by default);
- Login: login to logon on to the e-VTR (e-VTR by default);
- Password: password to logon on to the e-VTR (e-VTR by default).

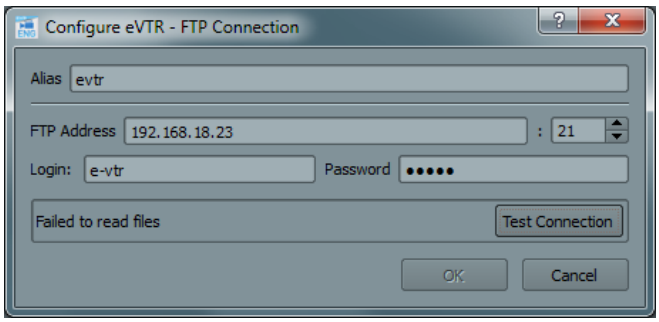


Figure 30: e-VTR configuration

Once you have filled in all the fields, you can check the parameters by clicking on the **[Test Connection]** button.

A status message will be displayed at the left of the **[Test Connection]** button.

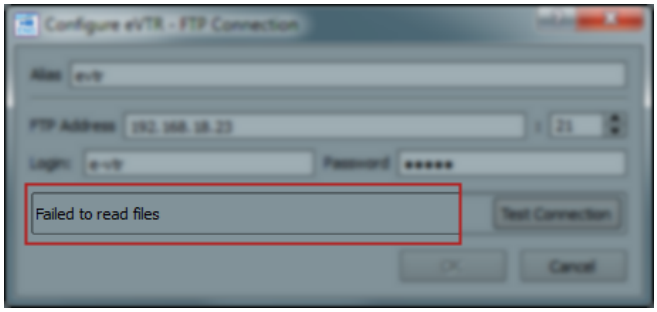


Figure 31: e-VTR configuration connection status

If the connection is successful, click on **[OK]**.

Figure 32: Connected e-VTR

To browse the e-VTR, simply click on the green tape. The contained sequences will appear in the explorer panel.

There are at least two default sequences on an e-VTR tape:

- **whole**: the sequence represents the entire tape.
- **current**: the sequence represents the video from the tape head to the end of the tape.

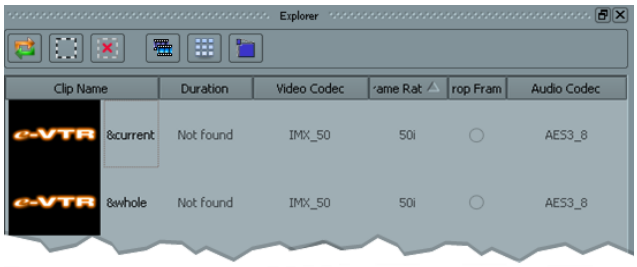


Figure 33: e-VTR sequences into Explorer

To browse the e-VTR again, you have to click on the button, and then click on the green tape. It is a good practice to rewind the tape manually before browsing the e-VTR because the device will not respond for some time (a matter of minutes) while it is performing a rewind. If you try to reconnect OpenCube ENGSoft to the e-VTR while it is rewinding, the application may interpret the lack of response as a connection failure.

To ingest an e-VTR sequence, you can use the same button as P2 or XDCAM mode (-).

Warning
As there is no duration on an e-VTR sequence, the ingest progress bar should not be taken into account.

The e-VTR log is available in the directory "`%ApplicationData%\EVS Broadcast Equipment\OpenCube ENGSoft\log`".

Warning
As ENGSoft uses an FTP connection to ingest e-VTR, sometimes the connection may fail or timeout. You may have to retry or switch off the e-VTR device.

9.4. Virtual Mode

In virtual mode, the source module allows you to browse a local or remote folder as a source subject. The folder layout and file types must comply with the selected subject type.

Warning
Auto-Ingest is not allowed from virtual sources.

The source types supported are:

- P2 Tree,
- XDCAM Tree/Flat with support of optical, SxS sequences and SxS multipart takes,
- Canon XF-Series Tree.

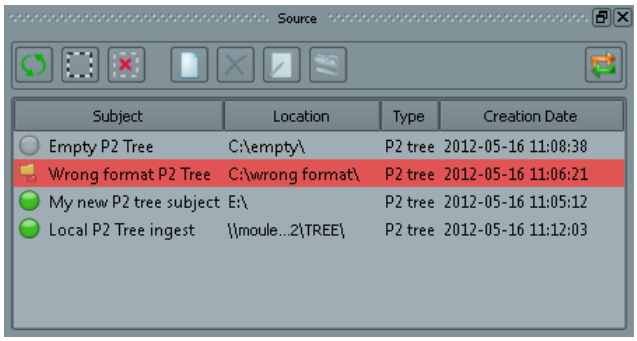


Figure 34: Virtual source selector (P2 mode)

Button	Description
	The 'Select all' button selects all the subjects in the list.
	The 'Unselect all' button unselects all the subjects in the list.
	The 'New subject' button opens a subject creation selector dialog box.
	The 'Delete subject' button deletes all the selected subjects in the list.
	The 'Rename subject' button allows you to rename the selected subject in the list. You can do the same thing by double-clicking on the name of the selected subject.

Button	Description
	The 'Change subject folder' button opens a browse dialog to locate the selected subject folder. You can do the same thing by double-clicking on the location field of the selected subject.
	The 'Refresh' button is used to refresh the state of all subjects in the list. It is advisable to clean up all cached information.
	The toggle button is used to switch to real mode.

The status of each subject (either source or destination) is represented by an icon.

Icon	Description
	The subject is healthy and accessible.
	A browsing request has been sent to this subject and the content is being fetched.
	The subject does not contain any sequences. No content will be returned to a browsing request. It is not an error. Hit the button to refresh the status.
	The browsing of this subject is not allowed for either security or licensing reasons.
	The root folder of this subject is not accessible. For example the 'CONTENTS' folder of a P2 Tree subject does not exist.
	The folder layout of the subject does not comply with its type. For example the 'VIDEO' folder of a P2 Tree subject does not exist.
	Any other invalidity reason.

Only one instance of a subject at a time should appear in a subject list. If you try to create a duplicate subject of the same type and path, a warning dialog will pop up asking you to use or modify the existing subject. The subject is automatically selected for you.

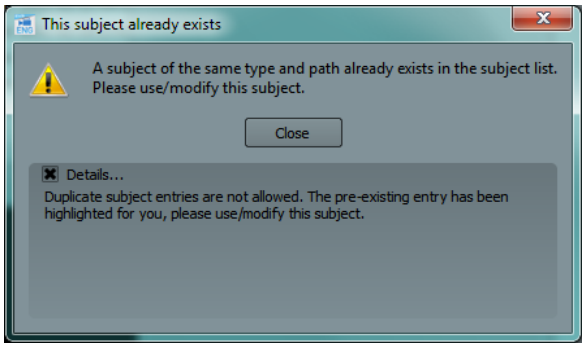

This subject already exists
A subject of the same type and path already exists in the subject list.
Please use/modify this subject.
Close
Details...
Duplicate subject entries are not allowed. The pre-existing entry has been highlighted for you, please use/modify this subject.

Figure 35: Duplicate subject warning dialog

Tree and Flat virtual subjects

The OpenCube ENGSoft source module handles two types of virtual source subjects: **tree** style subjects and **flat** style subjects. Tree subjects have to match the manufacturer's device file hierarchy whereas flat subject will accept any folder as is.

The **tree** style source subjects file hierarchy varies from one device to another. Below is a file hierarchy chart for the virtual source devices supported:

P2	XDCAM	XF-series XF100 - XF300 - C300
A root "CONTENTS" folder with at least one "CLIP", VIDEO", "AUDIO" and one "ICON" folder.	A "Clip" folder is mandatory and "Sub" and "Take" folders may appear.	A root "CONTENTS" folder including a "CLIPS001" folder.

Flat style source subjects can list any folder; all clip material will be laid out in that folder.

9.5. XDCAM Planning Support

9.5.1. Overview

In addition to traditional clip metadata, the Sony XDCAM standard can provide a user-defined metadata set called the **planning** metadata set. You can take advantage of this feature in OpenCube ENGSoft by enabling the XDCAM planning support option. When this option is activated you can browse, map and ingest planning information in OpenCube ENGSoft like any other metadata set.

Only one user-defined planning set can be used by OpenCube ENGSoft at a time. If you want to take advantage of your XDCAM material planning metadata you should start by carefully defining the information you will need to access in your planning metadata and design it. This set alone will be recognized as the valid planning set by OpenCube ENGSoft. If you want us to help you design the planning metadata that best fits your workflow needs, contact us at support.opencube@evs.com.

9.5.2. Enabling XDCAM Planning Support in OpenCube ENGSoft

An XML schema file will be designed for your specific needs and should be installed to complete the configuration of OpenCube ENGSoft and enable XDCAM planning support.

After you install the application, you will have to manually copy the "`XDCAMPlanningSchema.xsd`" file that has been provided with your software installer in the "`C:\ProgramData\EVS Broadcast Equipment\OpenCube ENGSoft`" folder.

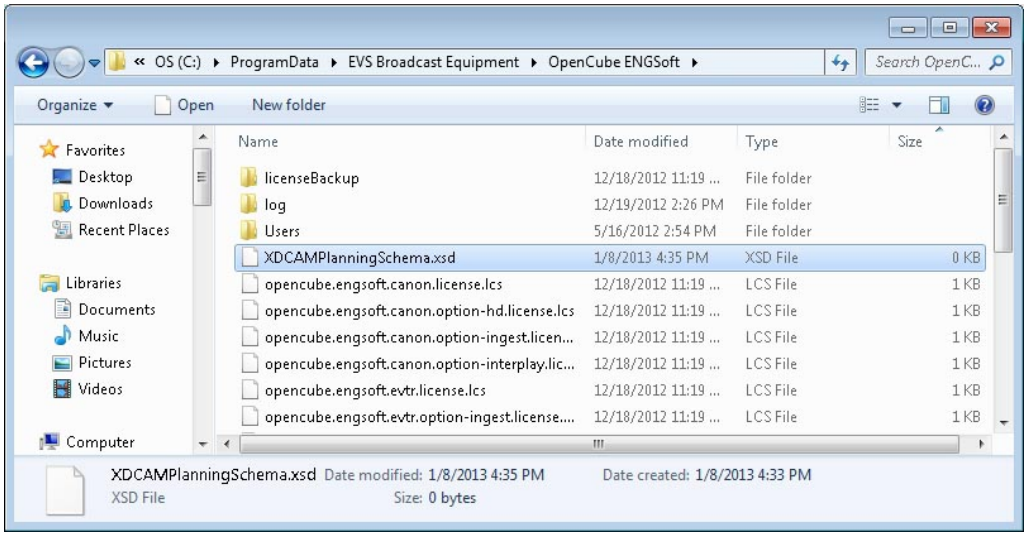

OS (C:) ▸ ProgramData ▸ EVS Broadcast Equipment ▸ OpenCube ENGSoft ▸
Search OpenC...
Organize
Open
New folder
Favorites
Desktop
Downloads
Recent Places
Libraries
Documents
Music
Pictures
Videos
Computer
Name
Date modified
Type
Size
licenseBackup 12/18/2012 11:19 ... File folder
log 12/19/2012 2:26 PM File folder
Users 5/16/2012 2:54 PM File folder
XDCAMPlanningSchema.xsd 1/8/2013 4:35 PM XSD File 0 KB
opencube.engsoft.canon.license.lcs 12/18/2012 11:19 ... LCS File 1 KB
opencube.engsoft.canon.option-hd.license.lcs 12/18/2012 11:19 ... LCS File 1 KB
opencube.engsoft.canon.option-ingest.licen... 12/18/2012 11:19 ... LCS File 1 KB
opencube.engsoft.canon.option-interplay.lic... 12/18/2012 11:19 ... LCS File 1 KB
opencube.engsoft.evtr.license.lcs 12/18/2012 11:19 ... LCS File 1 KB
opencube.engsoft.evtr.option-ingest.license.... 12/18/2012 11:19 ... LCS File 1 KB
XDCAMPlanningSchema.xsd Date modified: 1/8/2013 4:35 PM Date created: 1/8/2013 4:33 PM
XSD File Size: 0 bytes

Figure 36: Location of the XDCAMPlanning schema to enable XDCAM planning support

10. Explorer Module

10.1. Overview

The sequences contained in all the selected sources are displayed in the explorer panel. You can customize the explorer view in a number of different ways.

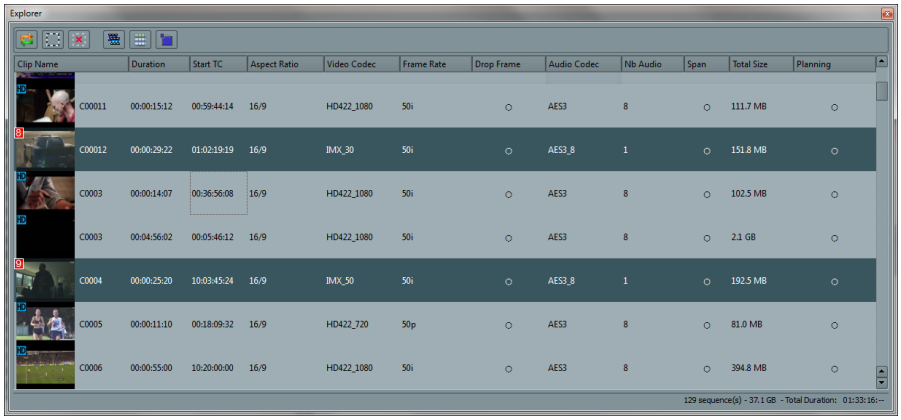


Figure 37: Explorer overview

There are various command buttons on top of the explorer panel:

Button	Description
	The 'Select all' button selects all the displayed sequences.
	The 'Unselect all' button clears the explorer selection.
	The 'Refresh' button updates the icons and information of the displayed sequences.
	The 'Clip name/User clip name' toggle button allows you to switch the name of the sequences between the file name and the user-defined name.
	The 'Icon size' toggle button lets you switch between three icon sizes: large, small, none
	The 'Icon/List/Detail view' toggle button allows you to switch between the three view modes.

Note
You can configure the information you want to display in detail view in the explorer by right-clicking on the header view bar and selecting the details you want. The set of details you can display depends on the source device type.

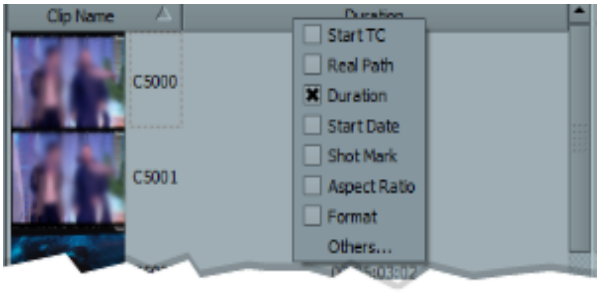


Figure 38: The detail popup

10.2. Sequence Thumbnail

Some indications are embedded in the sequence icons. These indications refer to the sequence attributes and status:

Icon	Description
HD	The sequence format is HD.
M	The sequence has a shot mark.
S	The sequence is a spanned (multipart) sequence. **Note** A spanned sequence is the logical aggregation of multiple sequences of identical format and treated as a single sequence. The parts should have consecutive timecodes.
!	The spanned sequence is incomplete. Either it is a separate part of a span or a part of the span is missing.
T	The sequence has some memo text associated with it.
V	The sequence has some memo voice associated with it.
W	The sequence is a widescreen (16:9) sequence. HD sequences are not marked as widescreen even if this is the case.
✓	The sequence has a check mark (only available on XF-Series sequences).
OK	The sequence has an OK mark (only available on XF-Series sequences).
✓	The sequence has subclip marks.

As it can take some time to retrieve all the information of browsed sources on certain devices, the explorer is updated asynchronously so that the user can keep interacting with the application while the source is still reading. For example, sequence thumbnails are created one by one, and until it has been created, the manufacturer's icon is displayed instead.

Figure 39: Explorer (while it is loading thumbnails)

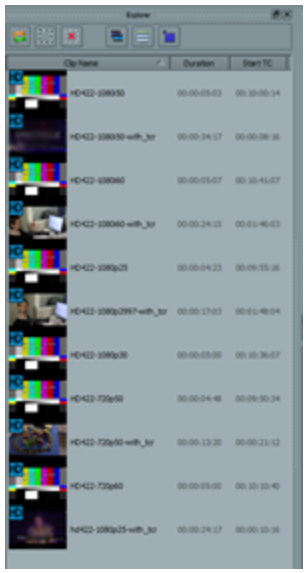


Figure 40: Explorer (all the thumbnails are displayed)

10.3. Multiple Selection

The 'explorer status bar' is located at the bottom of the explorer panel. The status bar displays useful information such as the number of selected sequences, the approximate size of the selected files and the duration of the selection.

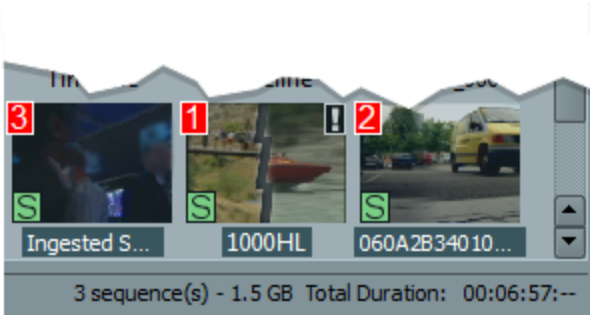


Figure 41: The explorer status bar

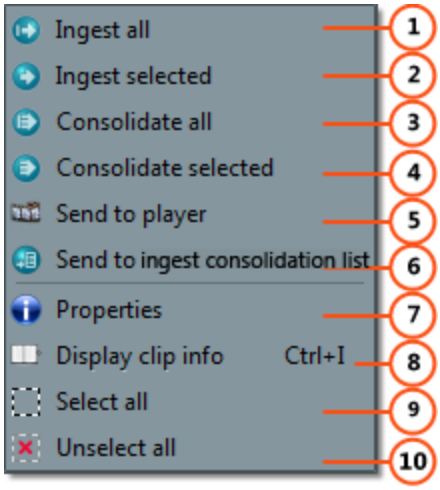
The explorer view has the standard ergonomic single/multi-selection mechanisms: Shift/Ctrl + Mouse Click; mouse Drag and Drop area selection.

When several items are selected, a number appears listing the order of their selection.

Figure 42: Multiple selection and order digits

10.4. Context Menu

You can call up a context menu by right clicking in the explorer window; the options available depend on the current sequence selection:



Part	Description
1	Sends all the sequences to the ingest stack.
2	Sends selected sequences to the ingest stack. Accessible only if some sequences are selected.
3	Sends all the sequence to the ingest stack to consolidate them.
4	Sends selected sequences to the ingest stack to consolidate them. Accessible only if some sequences are selected.
5	Sends selected sequences to the video player. Accessible only if some sequences are selected. The first selected sequence will be played back.
6	Sends selected sequences to the ingest consolidation list. Accessible only if some sequences are selected.
7	Shows/hides the sequence properties panel for that selected sequence. Accessible only if one sequence is selected.
8	Opens a popup window displaying the selected sequence information summary.
9	Selects all the displayed sequences.
10	Unselects all the sequences.

11. Ingest Module

11.1. Overview

The ingest panel is where you can send and manage the ingest jobs. You can follow the progress of the ingest jobs, pause, resume, cancel and reorder the jobs. The log of the current ingest session is available for consulting and can be saved in a text file.

The ingest module is divided into two parts. The upper part shows the destination subject list and the lower the ingest stack.

At least one destination must be selected before you can start ingesting materials.

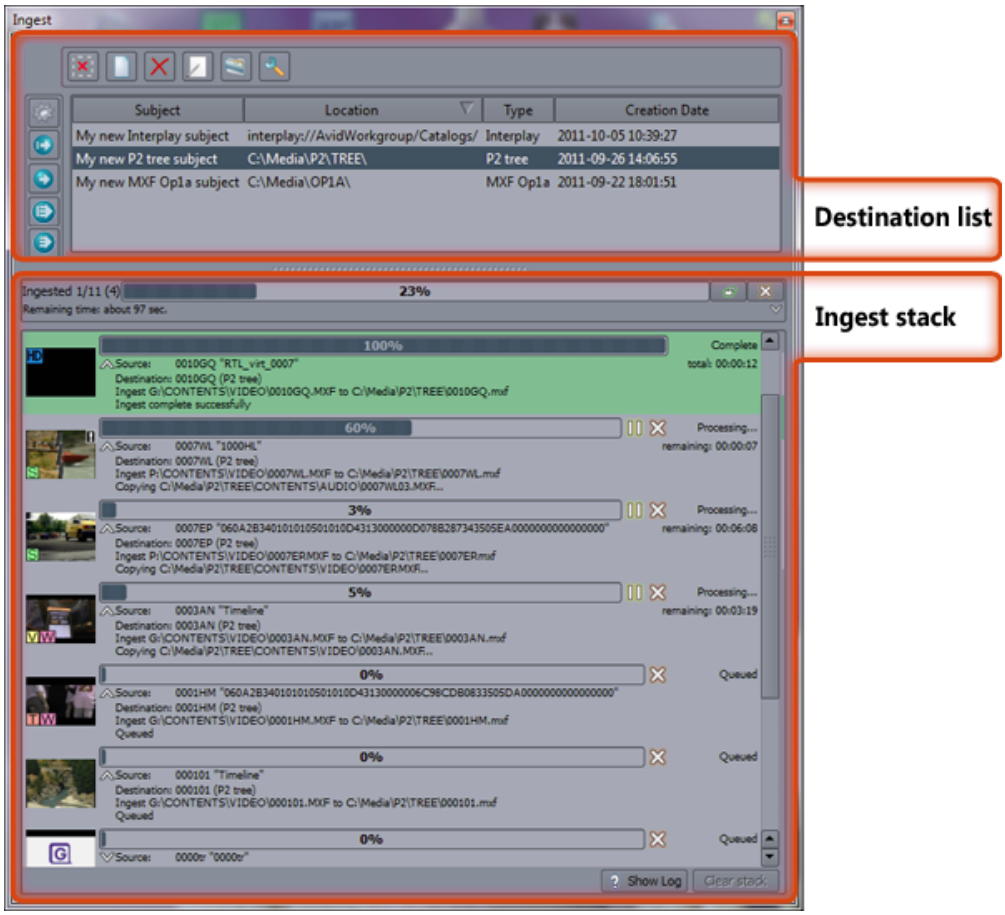


Figure 43: Ingest module

You can set the number of simultaneous ingest jobs from 1 to 6 via the **[Options > Max. parallel ingests...]** menu entry.

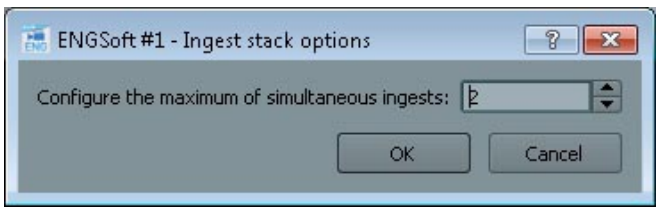


Figure 44: Setting the maximum number of simultaneous ingests.

11.2. Destination List

Button	Description
	The 'Unselect all' button clears all subject selections.
	The 'New subject' button allows you to create a new destination subject by choosing from among the destination types available.
	The 'Delete subject' button is used to remove the subject selected from the destination list. The subject's files and folders will not be deleted however.
	The 'Rename subject' button allows you to change the subject name.
	The 'Change subject folder' button allows you to browse a new location for the subject selected. The browsing dialog type corresponds to the selected subject type.
	The 'Subject options' button allows you to configure the subject selected. The configuration dialog type corresponds to the selected subject type.
	The 'Auto Ingest' button lets you open the Auto-Ingest dialog. This action is available only if the source module is in real mode.
	The 'Ingest all' button allows you to send all the sequences displayed in the explorer to the ingest stack. A subject must be selected to enable this action.
	The 'Ingest selected' button allows you to send the sequences selected in the explorer to the ingest stack. A subject and at least one sequence must be selected to enable this action.
	The 'Consolidate all' button allows you to send all the sequences displayed in the explorer to the ingest stack in order to consolidate them. A subject must be selected to enable this action.
	The 'Consolidate selected' button allows you to send the sequences selected displayed in the explorer to the ingest stack in order to consolidate them. A subject and at least two sequences must be selected to enable this action.
NEW !	The 'Ingest the consolidation list' button allows you to send the current ingest consolidation list to the ingest stack in order to consolidate it. A subject must be selected and a non empty ingest consolidation list must exist to enable this action.

To ingest sequences, you must first create a destination subject.

Warning
Interplay and/or IPDirector connection must already be configured before you create an Interplay/IPDirector destination subject.

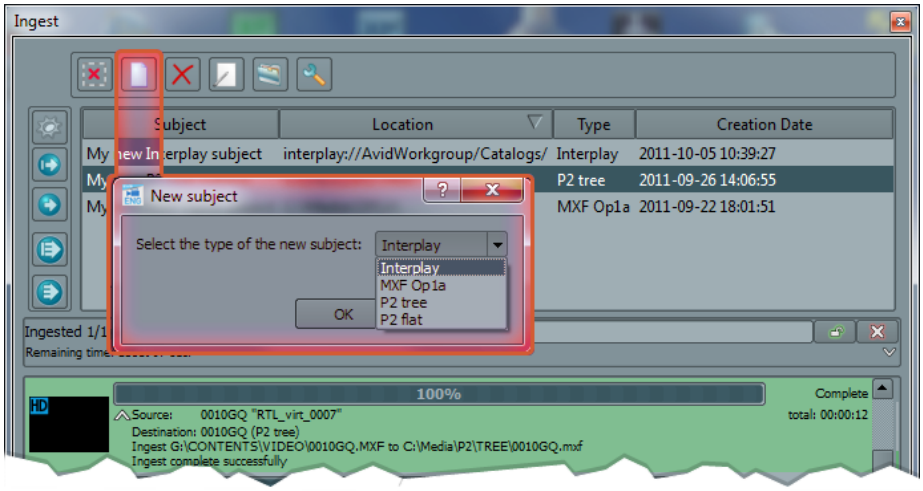


Figure 45: Creating a new destination subject

The following destination subject types are supported by OpenCube ENGSoft 1.7:

- Interplay;
- AVID OPAtom;
- IPDirector;
- MXF OP1a;
- P2Tree & P2Flat (P2 mode only);
- XDCam Flat (XDCam mode only).

You can rename the new subject in the destination list at any time by double-clicking in the first column or by clicking on the button. You can change the subject options at any time by clicking on the button on the top of the ingest panel.

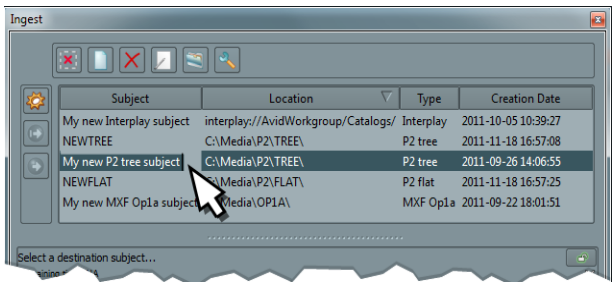


Figure 46: Renaming a destination subject

11.3. P2 Tree/Flat Destination

11.3.1. Overview

P2 Tree and P2 Flat destination subjects are quite similar; they both consist of P2 style OP-Atom file-based target sequences. They are accessible only in P2 mode. The difference between the two lies in the destination folder structure:

P2 Flat structure		P2 Tree structure	
Folder Hierarchy:	**Content:**	**Folder Hierarchy:**	**Content:**

FLAT	Audio and Video MXF OP-Atom files side by side	TREE	
P2Cache	XML clip files BMP thumbnails MP4 or BIN proxy files	CONTENTS	
		AUDIO	Audio MXF OP-Atom files
		CLIP	XML clip files
		ICON	BMP thumbnails
		PROXY	MP4 or BIN proxy files
		VIDEO	Video MXF OP-Atom files
		VOICE	PCM memo voice files

11.3.2. Creating a P2 Tree/Flat Destination Subject

- Select "P2 tree" or "P2 flat" in the "New subject" dialog box.

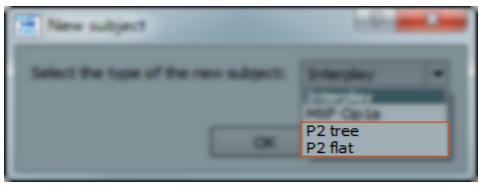


Figure 47: Selecting the new subject

- A folder browser dialog will automatically open. Browse to the folder where you want to store your ingested sequences.

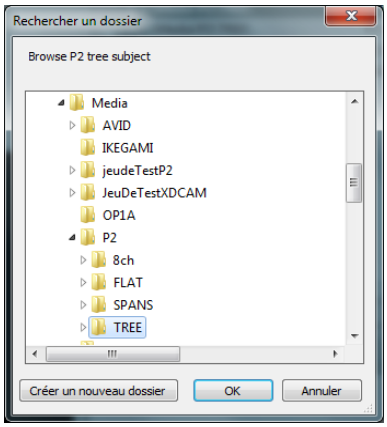


Figure 48: Browsing the destination folder

You can change the destination folder later by clicking on the button on the top of the ingest panel.

11.3.3. Configuring a P2 Tree/Flat Subject

You can change the subject options by clicking on the button on the top of the ingest panel.

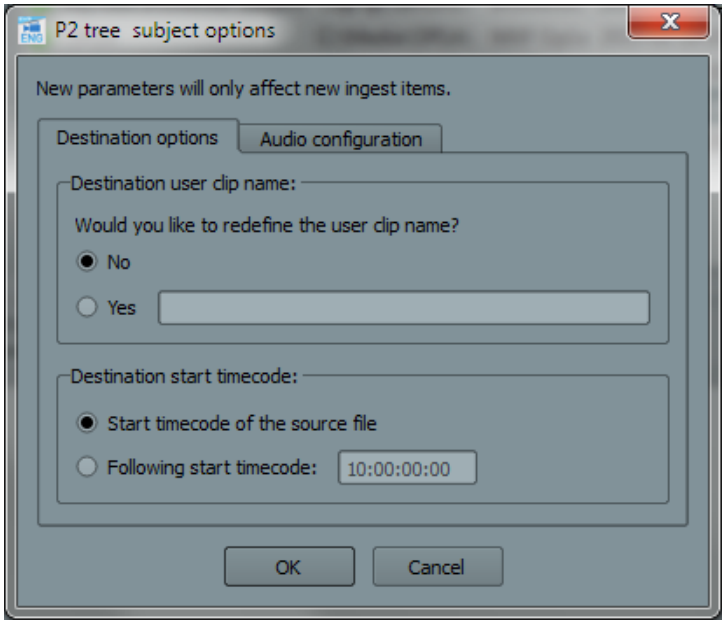


Figure 49: P2 Tree/Flat subject options

In P2 Tree/Flat mode destination you can specify a user clip name manually for the destination sequence. Otherwise the source sequence user clip name is used.

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

11.4. MXF OP1A Destination

11.4.1. Overview

MXF OP1A destination subjects allow you to convert any supported source sequence into an MXF OP1A file. By default, the resulting file name is the source file name. If a file with the same name already exists in the destination folder, the application will ask the user what to do by default. You can change the destination file naming policy, using the source's user clip name or set a fixed file name as destination file name. You can also specify whether or not to automatically add an increment to the destination file name.

11.4.2. Creating an MXF OP1A Destination Subject

- Select "MXF Op1a" in the "New subject" dialog box.

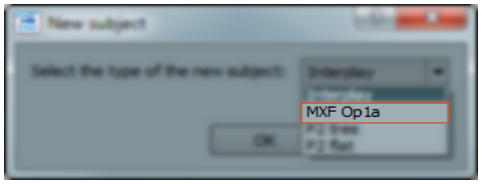


Figure 50: Selecting the new subject

- A folder browser dialog will automatically open. Browse to the folder where you want to store your ingested sequences. You can change the destination folder later by clicking on the button on the top of the ingest panel.

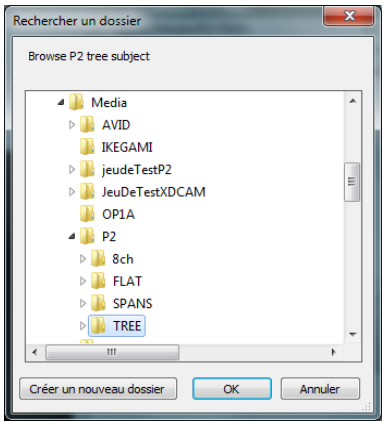


Figure 51: Browsing the destination folder

11.4.3. Configuring an MXF OP1A Subject

You can change the subject options by clicking on the button on the top of the ingest panel.

For MXF OP1A destination subjects you can configure the destination file naming rules.

These rules will be applied as a base name for all generated destination files. You can also set the rules determining what should be done if a file with the same name already exists.

You can select from among four different file naming rules:

- **"Source clip name"** means that the base name of destination file will be the same as the source file. For example, if the source file is `MyClip.mxf` then the destination base name will be MyClip.
- **"Source user clip name"** means that the base name of the destination file will be the user defined clip name (as stored in the sequence metadata if there are any). If no user clip name is defined, it is resolved as "Not found".

  "Ask me (not available in Auto-Ingest)" means that you will be prompted to manually rename the ingest items when you drop them to the ingest stack. This option is not available in Auto-Ingest. See "Manual Renaming Dialog" on page 79.
- **"Following basename"** means that the base name of destination file will be the text string provided.

Two options are possible in the event of a file conflict:

- **"Ask me"** means that an error will be raised each time there is a conflict, requesting you to select the appropriate action.
- **"Automatically increment filename"** means that an ordinal will be added to the new destination file base name. For example, if a file named `MyClip.mxf` already exists, the new destination basename will be `MyClip1` and so on. This option is automatically selected if you use a fixed base name, thus allowing you to ingest ordered lists of ingests (`MyClip1`, `MyClip2` ... `MyClipN` list).

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

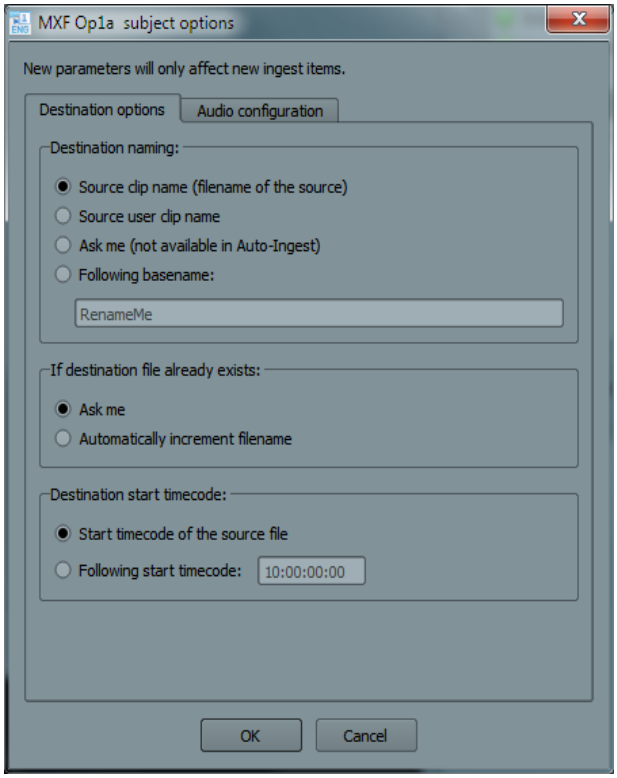


Figure 52: MXF Op1A destination subject options

11.5. XDCAM Flat Destination

11.5.1. Overview

XDCAM Flat destination subjects allow you to create a fully compatible XDCAM destination. It is accessible only in XDCAM mode. The main resolution, metadata XML and proxy files are stored side by side in the selected folder. Assuming the clip name is "Myclip", the main resolution, metadata XML and proxy file names will be Myclip.mxf, MyclipM01.xml and MyclipS01.mxf, respectively.

Note
The MXF file format of the source file is preserved (Ingest or subclip on an SxS format will generate an SxS MXF file).

11.5.2. Creating an XDCAM Flat Destination Subject

- Select "XDCAM Flat" in the "New subject" dialog box.

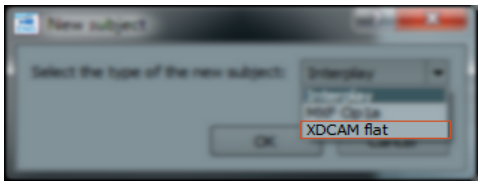


Figure 53: Selecting the new subject

- A folder browser dialog will automatically open. Browse to the folder where you want to store your ingested sequences. You can change the destination folder later by clicking on the button on the top of the ingest panel.

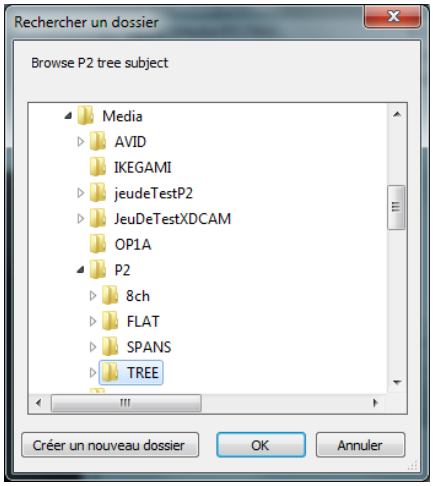


Figure 54: Browsing the destination folder

11.5.3. Configuring an XDCAM Flat Subject

You can change the subject's options by clicking on the button on the top of the ingest panel.

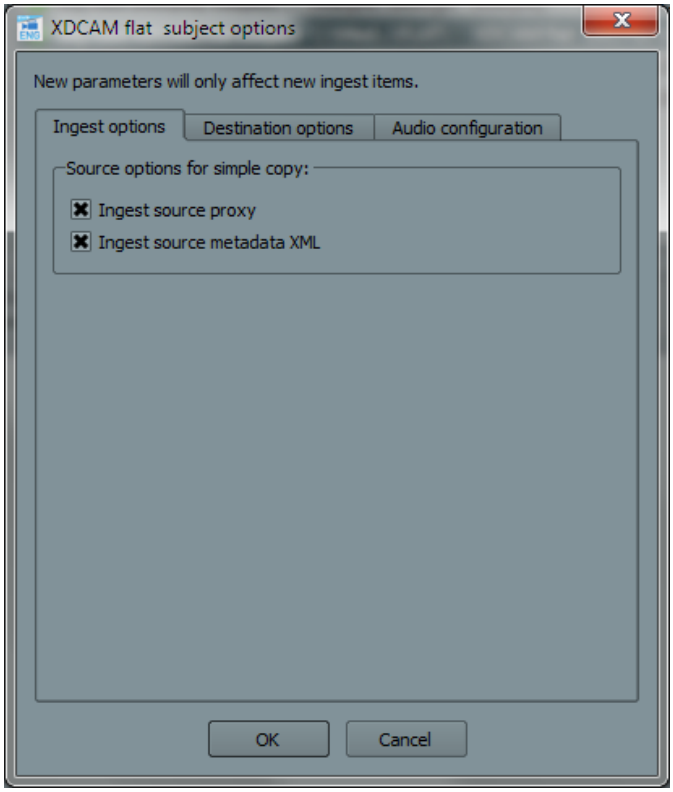


Figure 55: The source proxy and metadata XML files copy is selected by default

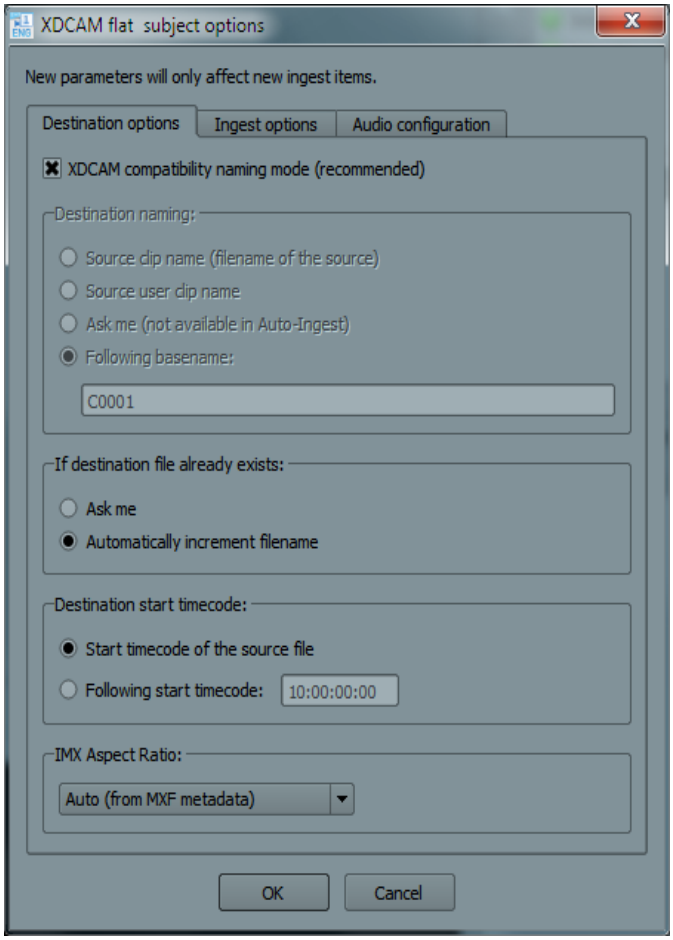


Figure 56: XDCAM compatibility naming mode replaces all destination naming options

You can select the extra source element you want to take into account:

- **"Input source proxy"** If checked, the source proxy, if there is one, will be copied.
- **"Input source metadata XML"** If checked, the source metadata XML, if there is one, will be copied.

Warning
The proxy resolution files and XML files are not ingested when you subclip.

You can set the destination file naming policy in one of two ways:

- By checking the **[XDCAM compatibility naming mode]** box, which will generate a series of legacy XDCAM compliant file names (C0001, C0002 ... C9999). Note that it will check for file conflicts.
- By manual configuration, in the same way that it is done for MXF OP1A subjects. See "Configuring an MXF OP1A Subject" on page 50.

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"IMX Aspect Ratio"** group you can set one of the different IMX aspect ratio policy for the ingested file. See "IMX Aspect Ratio Correction" on page 72.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

11.6. Interplay Destination

11.6.1. Overview

The Interplay destination subject allows you to convert any supported source sequence into an Interplay clip. Avid® Media Toolkit is used internally to create the media files. The clip is checked-in on the Interplay database using the Interplay Web Services; optionally a proxy resolution can be generated and linked to that clip. Interplay metadata can be customized.

11.6.2. Creating an Interplay Destination Subject

- Select "Interplay" in the 'New subject' dialog box.

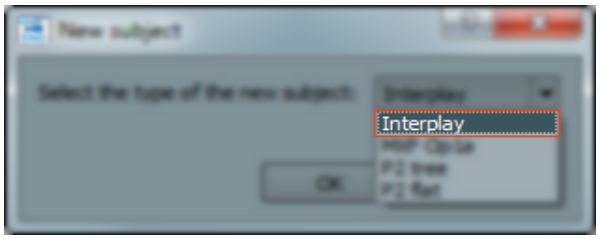


Figure 57: Selecting the new subject

- An Interplay browser dialog will automatically open.

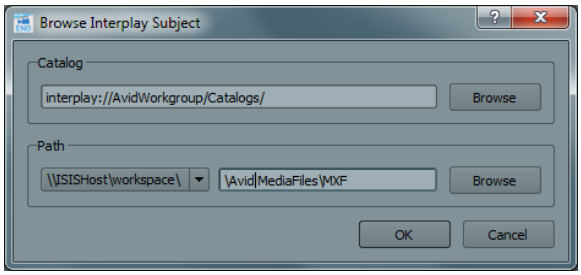


Figure 58: Interplay browser

Type in the destination catalog of the Interplay database where the clips will be checked in. You can browse the catalog hierarchy directly by clicking on the **[Browse]** button in the "Catalog" section. You can use ENGSoft to create subfolders of `Catalogs`.

Then select the workspace on the storage server and type in the destination folder where you want to store the media files. You can browse the catalog hierarchy directly by clicking on the **[Browse]** button in the "Path" section. You can change the destination later by clicking on the button on the top of the ingest panel.

11.6.3. Configuring an Interplay Subject

You can change the subject's options by clicking on the button on the top of the ingest panel.

In the **"Ingest options"** tab, you can modify the Interplay subject options:

- Whether or not to create an Avid® system compliant output directory.
- Whether or not to generate a proxy resolution for the clip.
- Whether or not to ingest the high resolution with the edit while record feature.

The "Create output directory as Avid system" option creates a folder in your destination target with the same name as your ingesting computer plus a digit. The ingested media files will be created in this folder. Once the folder contains 10, 000 files, a new folder is created whose name is incremented and in which new ingested media will be stored, and so on. This is required in order to comply with Avid® Interplay specifications. The folders are created automatically. It is advisable to keep the option checked.

The available proxy formats are listed in the screenshot below:

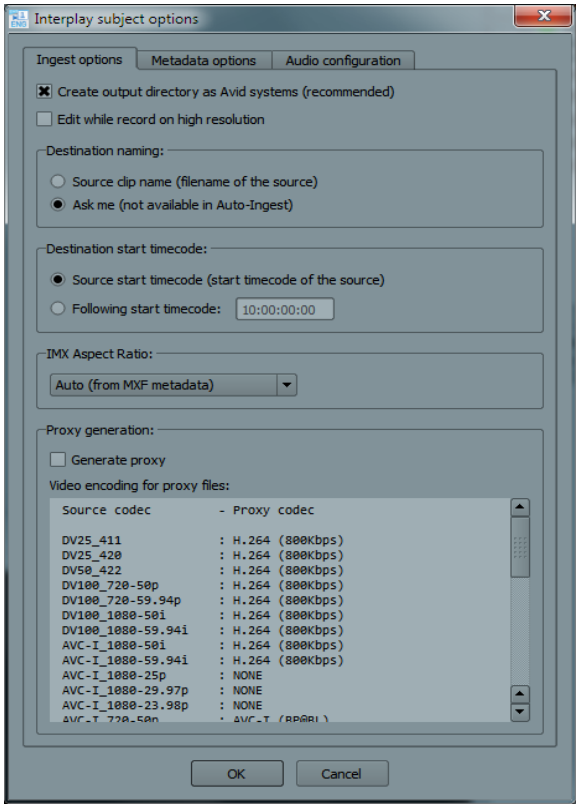


Figure 59: Interplay subject ingest options

In the **"Destination naming"** group you can select from among two different file naming rules:

- **"Source clip name"** means that the base name of destination file will be the same as the source file. For example, if the source file is `MyClip.mxf` then the destination base name will be MyClip.
- **"Ask me (not available in Auto-Ingest)"** means that you will be prompted to manually rename the ingest items when you drop them to the ingest stack. This option is not available in Auto-Ingest. See "Manual Renaming Dialog" on page 79.

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"IMX Aspect Ratio"** group you can set one of the different IMX aspect ratio policy for the ingested file. See "IMX Aspect Ratio Correction" on page 72.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

In the **"Metadata options"** tab, you can define the attributes to assign to the Interplay clip.

Only the editable set of Interplay clip attributes can be defined. For each attribute you can specify either a plain text string or one of the source type's metadata. P2 and XDCAM sequences have a different set of metadata.

To specify a user defined value, select **"User"** in the corresponding **"Source"** drop-down box and type the value you want in the corresponding **"Value"** field.

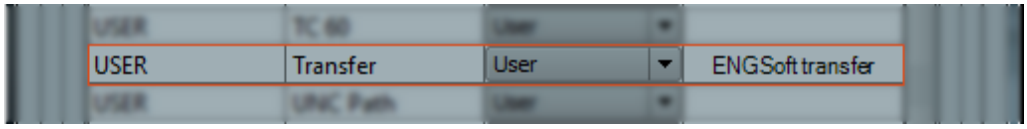


Figure 60: Setting a user defined attribute to an Interplay ingest

To map a given source metadata, select **"MTD Clip"** in the corresponding **"Source"** drop-down box and select the metadata you want in the **"Value"** drop-down box.

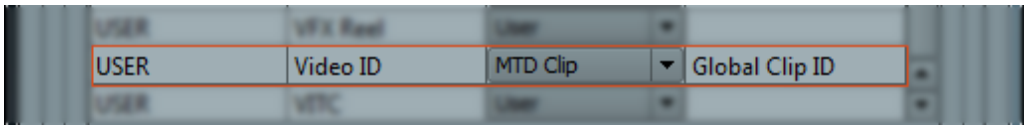


Figure 61: Mapping a sequence attribute to an Interplay ingest

Note
The sequence attribute "Start TC" refers to the **destination start timecode** value if redefined in the **ingest options** tab rather than the source start timecode. See "Start Timecode Redefinition" on page 65.

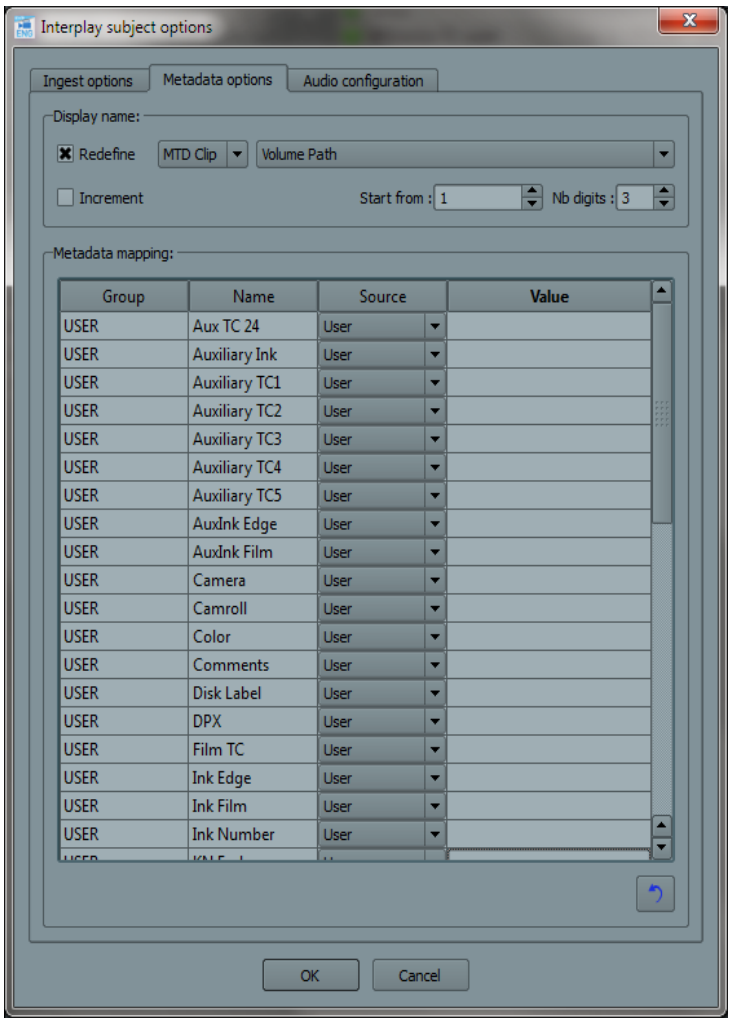


Figure 62: Interplay metadata mapping

You can reset to the Interplay server's metadata set by clicking on the button. By doing so you will retrieve the server system and user metadata set.

Warning
If you reset to the server's set, it will erase the current metadata mapping.

You can redefine the display name attribute in the same way, either by specifying a plain text string, by mapping a source metadata or by directly using the resulting file name of the ingest. You can also add an ordinal increment to the display name starting on the value in the **"Start from"** spinbox on a mantissa size of the value in the **"Nb Digits"** spinbox.

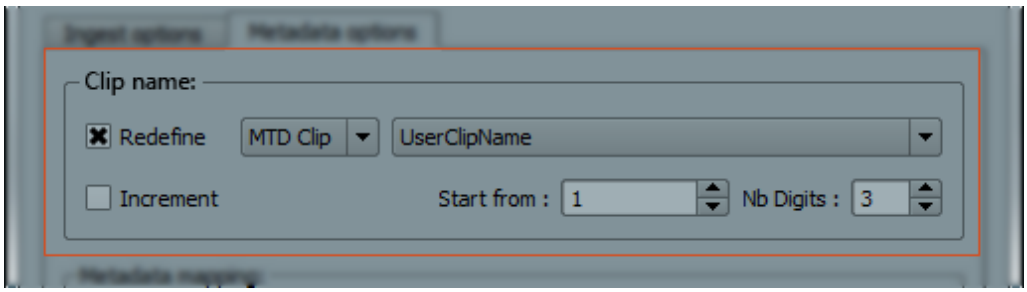


Figure 63: Generating a name for an Interplay ingest (here using the source user clip name)

11.7. AVID OPAtom Destination

11.7.1. Overview

The AVID OPAtom destination subject allows you to convert any supported source sequence into an AVID OPAtom clip. Avid® Media Toolkit is used internally to create the media files.

11.7.2. Creating an AVID OPAtom Destination Subject

- Select "AVID OPAtom" in the "New subject" dialog box.

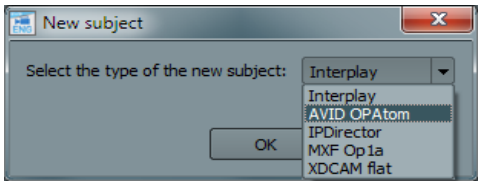


Figure 64: Selecting the new subject

- A folder browser dialog will automatically open. Browse to the folder where you want to store your ingested sequences. You can change the destination folder later

by clicking on the button on the top of the ingest panel.

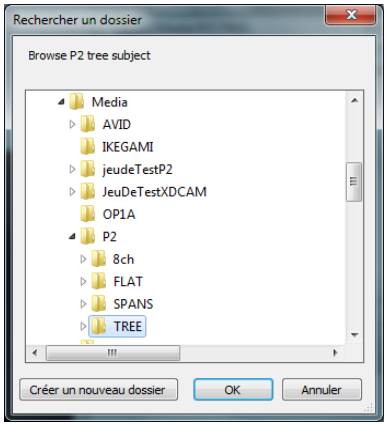


Figure 65: Browsing the destination folder

11.7.3. Configuring an AVID OPAtom Subject

You can change the subject options by clicking on the button on the top of the ingest panel.

In the **"Ingest Options"** tab you can select whether or not to create an AVID® system compliant output directory.

In the **"Destination naming"** group you can select from among two different file naming rules:

- **"Source clip name"** means that the base name of destination file will be the same as the source file. For example, if the source file is `MyClip.mxf` then the destination base name will be MyClip.

  "Ask me (not available in Auto-Ingest)" means that you will be prompted to manually rename the ingest items when you drop them to the ingest stack. This option is not available in Auto-Ingest. See "Manual Renaming Dialog" on page 79.

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"IMX Aspect Ratio"** group you can set one of the different IMX aspect ratio policy for the ingested file. See "IMX Aspect Ratio Correction" on page 72.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

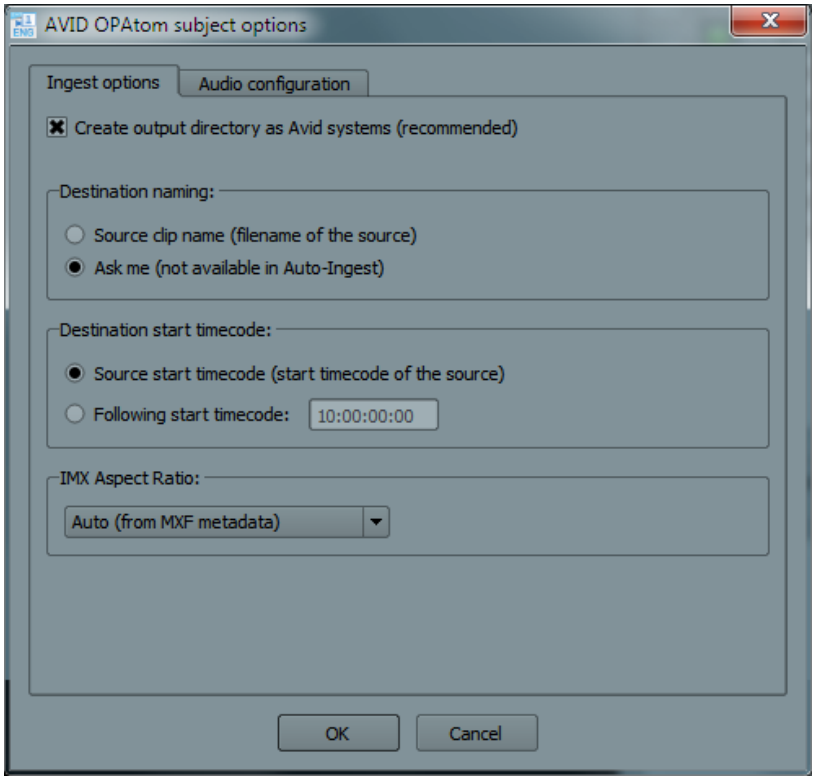


Figure 66: AVID OPAtom destination subject options

11.8. IPDirector Destination

11.8.1. Overview

The IPDirector destination subject allows you to ingest sequences to the IPDirector nearline. The clip is checked-in on the IPDirector database by the creation of an evs.xml clip descriptor next to media file on the nearline.

Note
XF-Series sequences ingested to IPDirector will be padded with mute tracks to achieve 8 mono audio tracks.

11.8.2. Creating an IPDirector Destination Subject

- Select "IPDirector" in the 'New subject' dialog box.

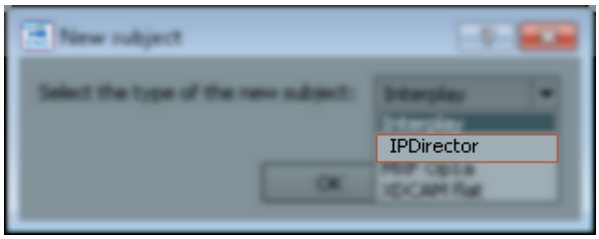


Figure 67: Selecting the new subject

- A folder browser dialog will automatically open. Browse to the folder where you want to store your ingested sequences. You can change the destination folder later by clicking on the button on the top of the ingest panel.

  No checking is done to determine whether the selected folder is an actual IPDirector nearline folder or not. If the selected folder is not a nearline folder, your ingested material will not appear in the IPDirector media list.

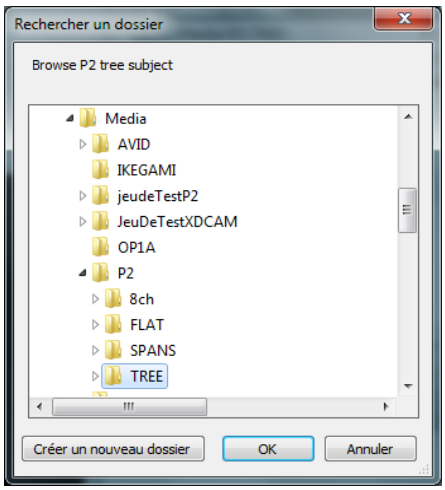


Figure 68: Browsing the destination folder

11.8.3. Configuring an IPDirector Subject

A valid connection to the IPDirector web service should be configured before configuring an IPDirector subject. You can open the IPDirector configuration panel via the **[Options > Configure IPDirector]** menu entry.

You can change the subject's options by clicking on the button on the top of the ingest panel.

In the **"Destination options"** tab, you can modify the IPDirector destination options.

For IPDirector destination subjects you can configure the destination file naming rules. These rules will be applied as a base name for all generated destination files. You can also set the rules determining what should be done if a file with the same name already exists.

You can select from among four different file naming rules:

- **"Source clip name"** means that the base name of destination file will be the same as the source file. For example, if the source file is `MyClip.mxf` then the destination base name will be MyClip.
- **"Source user clip name"** means that the base name of the destination file will be the user defined clip name (as stored in the sequence metadata if there are any). If no user clip name is defined, it is resolved as "Not found".

  "Ask me (not available in Auto-Ingest)" means that you will be prompted to manually rename the ingest items when you drop them to the ingest stack. This option is not available in Auto-Ingest. See "Manual Renaming Dialog" on page 79.
- **"Following basename"** means that the base name of the destination file will be the text string provided.

Two options are possible in the event of a file conflict:

- **"Ask me"** means that an error will be raised each time there is a conflict, requesting you to select the appropriate action.
- **"Automatically increment filename"** means that an ordinal will be added to the new destination file base name. For example, if a file named `MyClip.mxf` already exists, the new destination basename will be `MyClip1` and so on. This option is automatically selected if you use a fixed base name, thus allowing you to ingest ordered lists of ingests (`MyClip1`, `MyClip2` ... `MyClipN` list).

In the **"Destination start timecode"** group you can redefine the start timecode of the ingested files. See "Start Timecode Redefinition" on page 65.

In the **"Audio configuration"** tab you will be able to customize the audio routing parameters of the subject. See "Audio Routing" on page 65.

In the **"IMX Aspect Ratio"** group you can set one of the different IMX aspect ratio policy for the ingested file. See "IMX Aspect Ratio Correction" on page 72.

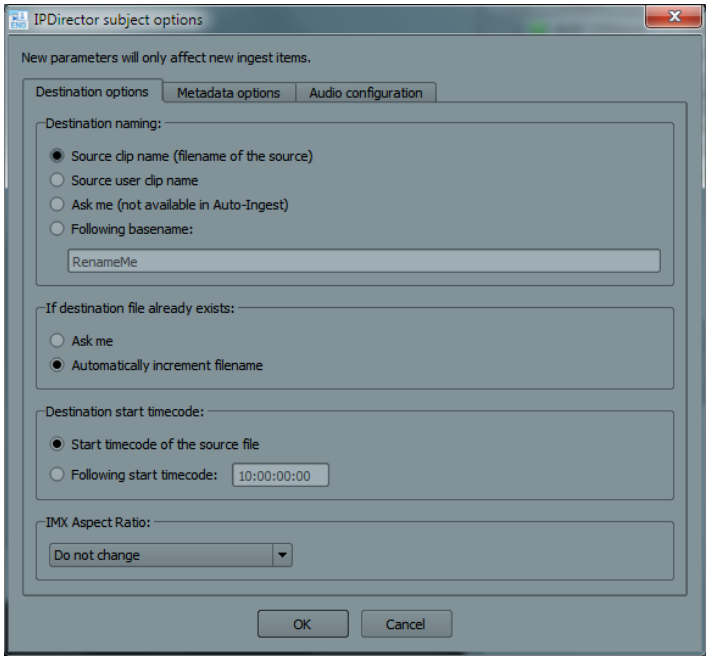


Figure 69: IPDirector 'Destination options' tab panel

In the **"Metadata options"** tab, you can define the attributes to assign to the IPDirector clip.

IPDirector metadata can be of following types:

- Text: a plain text string of up to 64 characters.
- Memo: a plain text string of up to 512 characters.
- Combo: a single choice from a set of predefined values.
- Date: a date in "dd-MMM-yyyy" format.
- Timecode: a timecode field in SMPTE format.
- Number: an integer value.

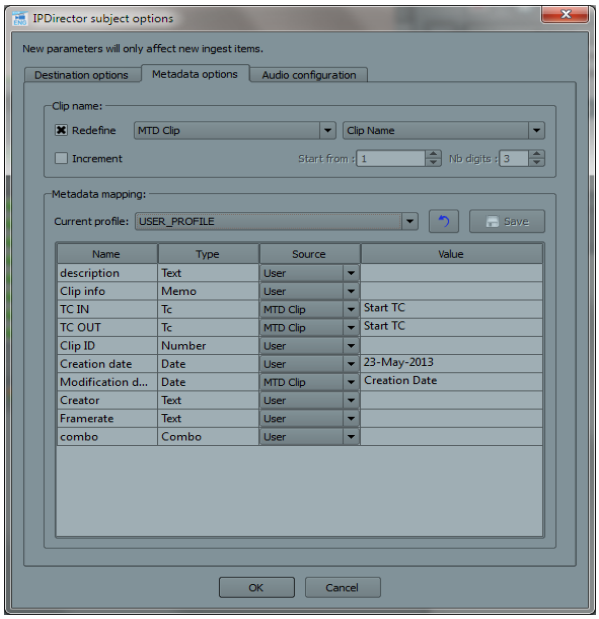


Figure 70: IPDirector metadata mapping panel

You can specify either a user defined value of the corresponding type or one of the source type's available metadata for each attribute.

Warning
You should be careful to map only compatible source sequence metadata to IPDirector metadata. For example, trying to map a timecode to a date will not be valid. If a metadata mapping issue occurs at the time of ingest, a warning popup will be raised on each ingest item concerned with a link to the Metadata mapping issue log. See "IPDirector Metadata Mapping Issue Handling" on page 78 for more information on this subject.

To specify a user-defined value, select **"User"** in the corresponding **"Source"** drop-down box and type the value you want in the corresponding **"Value"** field.

Figure 71: Setting a user defined attribute to an IPDirector ingest

To map a given source metadata, select **"MTD Clip"** in the corresponding **"Source"** drop-down box and select the metadata you want in the **"Value"** drop-down box.

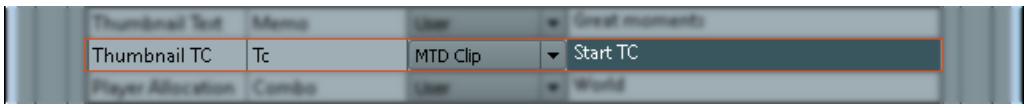


Figure 72: Mapping a sequence attribute to an IPDirector ingest

Note
The sequence attribute "Start TC" refers to the **Destination start timecode** value if redefined in the **ingest options** tab rather than the source start timecode. See See "Start Timecode Redefinition" on page 65.

You can reset to the IPDirector server's metadata profiles set by clicking on the button. By doing so you will retrieve the set of metadata profiles currently configured on the server.

Warning
If you reset to the server's set, it will erase the current metadata mapping.

Although you can edit and save all the profile mappings, only the currently displayed profile is used for ingesting.

You can redefine the clip name attribute, either by specifying a plain text string, by mapping a source metadata or by directly using the resulting file name of the ingest. You can also add an ordinal increment to the display name starting on the value in the **"Start from"** spinbox on a mantissa size of the value in the **"Nb Digits"** spinbox.

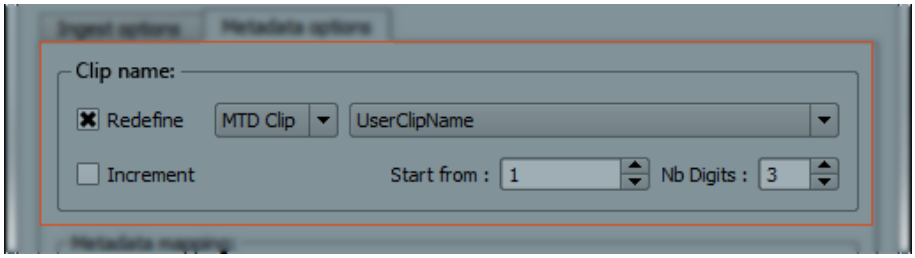


Figure 73: Generating a name for an IPDirector ingest (here using the source user clip name)

11.9. Start Timecode Redefinition

You can manually specify the ingested file start timecode by checking **"Following start timecode"** and type a timecode in the field beside it. If you check **"Start timecode of the source file"**, the source sequence start timecode will be used.

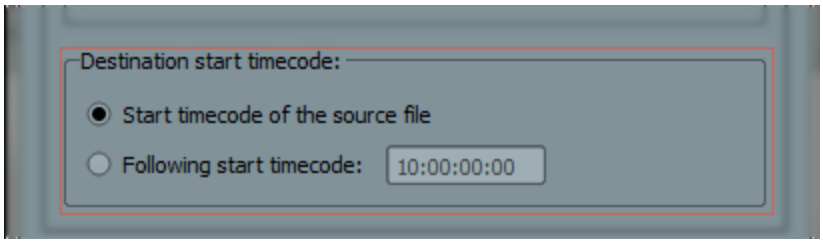


Figure 74: The "Destination start timecode" redefinition group

ENGSoft will retain the timecode frame rate of the source sequence.

Note
In case of a **subclip** and if you select **"Start timecode of the source file"**, the start timecode of the ingested file will be the timecode of the start of the subclip.

Note
In the case of a **consolidation** and if you select **"Start timecode of the source file"**, the start (or in frame) timecode of the first clip of the consolidation will be used.

Warning
When you configure a subject, you cannot determine whether or not the specified start timecode will comply with all the possible types of sequences to be ingested. For example if you specify "00:00:00:25" as the start timecode and try to ingest a sequence whose timecode framerate is 25, the specified start timecode will not be valid. A warning will be raised when the ingest starts and the start timecode of the ingested file will revert to the start (or in frame) timecode of the source.

11.10. Audio Routing

In the **"Audio configuration"** tab of a subject configuration panel, you can modify the mapping of audio tracks between the ingest source and destination.

Note
Audio routing is not supported for eVTR sources.

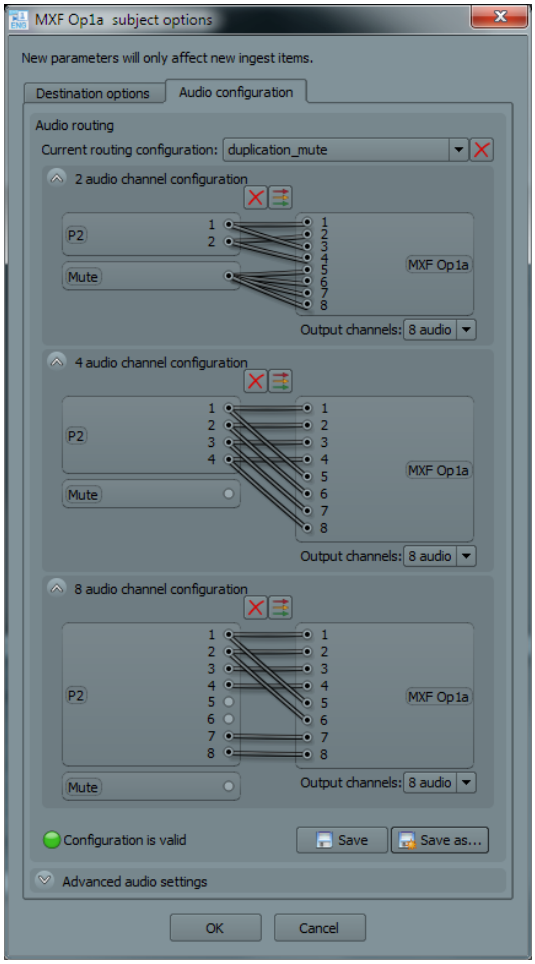


Figure 75: Audio routing panel with a configured mapping

The audio configuration panel is divided into several zones:

- The top part contains the name of the current audio routing configuration. By default no configuration is set.
- The middle zone contains up to three **audio layout graphs**, each corresponding to a possible ingest scenario: two, four or eight audio. All pins on the right side (destination) of each layout must be connected to make a valid configuration.
- The bottom zone contains a summary of the status of the current configuration, a "Save" button to save the current configuration and a "Save as..." button which allows you to choose the name of the configuration to be saved.

Default audio routing configuration

By default no routing is applied to the destination subject. A straight one to one mapping graph is applied: source pin #1 is connected to destination pin #1, source pin #2 to destination pin #2, and so on.

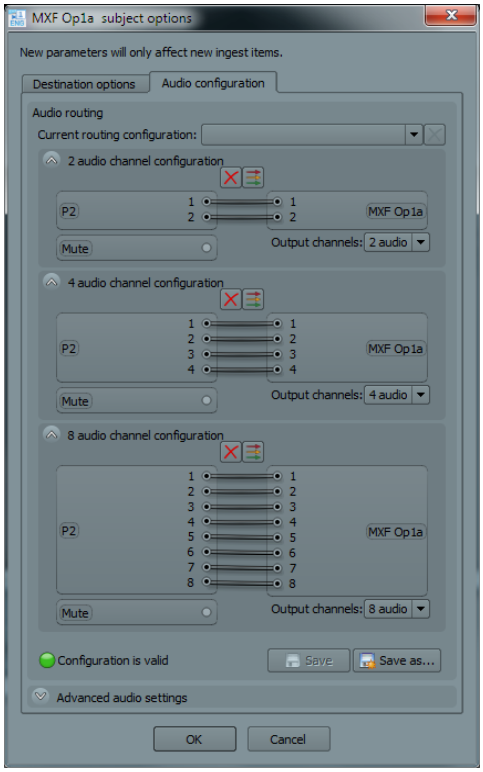


Figure 76: Default audio mapping

Audio layout description

There are up to three **audio layout graphs** per audio configuration, each corresponding to a possible ingest scenario: two, four or eight audio.

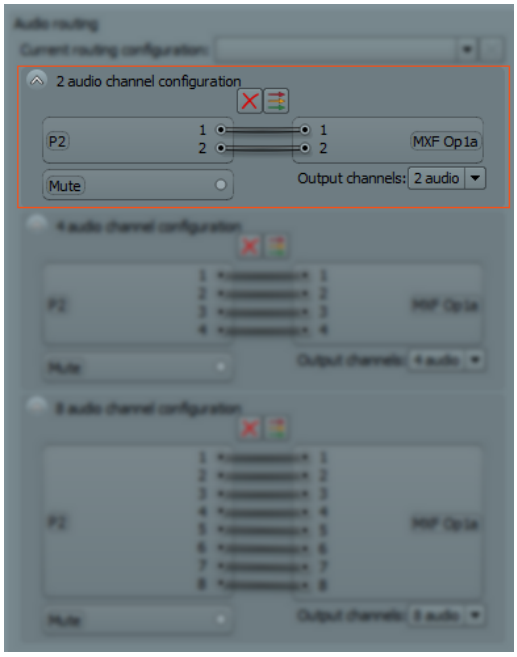


Figure 77: The two audio channel configuration layout

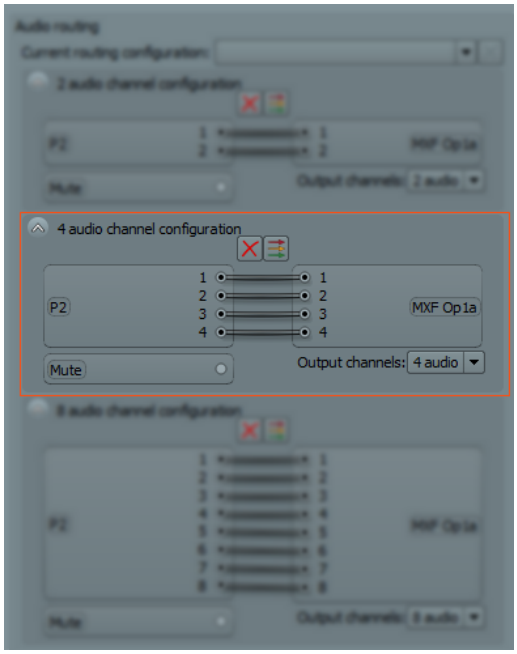


Figure 78: The four audio channel configuration layout

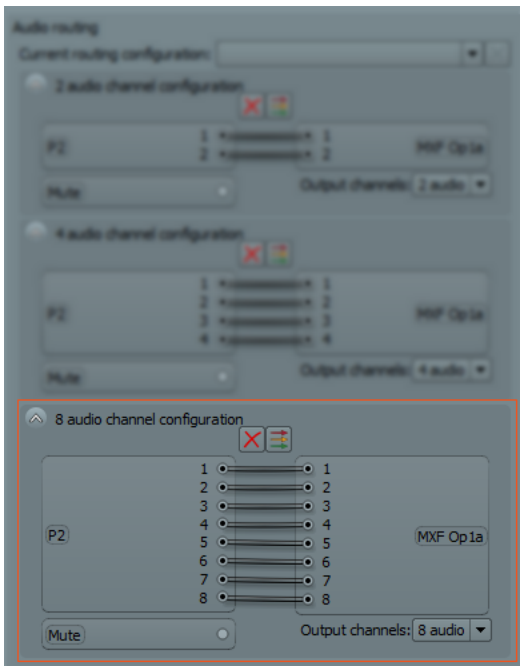


Figure 79: The eight audio channel configuration layout

The left side of an audio layout represents the ingest source, with the name of the source type displayed in the square. The 1-8 numbered buttons represent the source audio pins.

The right side of an audio layout represents the ingest destination, with the name of the destination subject type displayed in the square. The 1-8 numbered buttons represents the destination audio pins.

The connection graph of the source pins to the destination pins is displayed in between. For example, a link connecting pin #1 to destination pin #4 means that the audio track #1 of the source clip will be mapped to the audio track #4 of the destination clip.

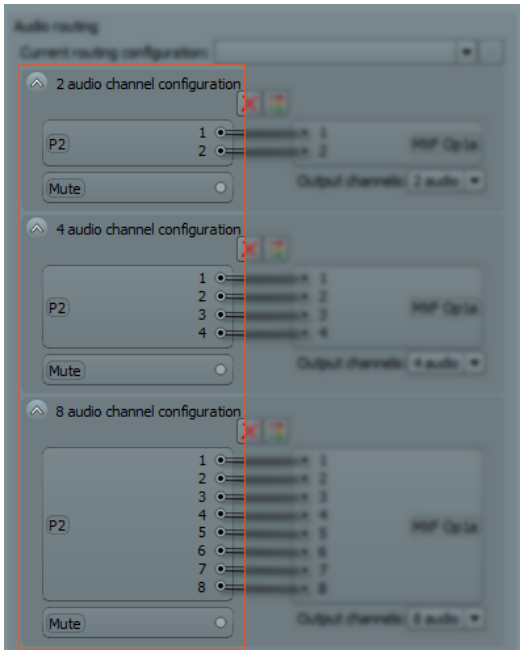


Figure 80: The source (XDCAM) side of the audio layout

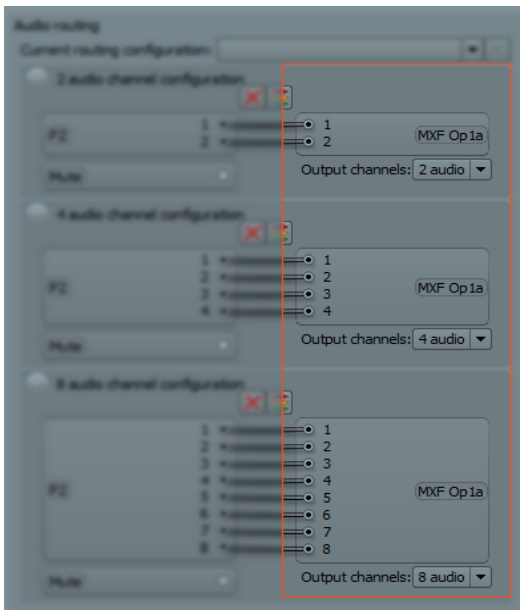


Figure 81: The destination (IPDirector) side of the audio layout

Creating an audio routing configuration

To modify a configuration, all you have to do is to drag a link between the source and destination pin. This will create a new connection.

Figure 82: Create a connection by dragging a link between the source and destination pins

You can disconnect all the pins of an audio layout by clicking on the button on the top of the layout. You can reconnect all the pins of an audio layout by clicking on the button on the top of the layout.

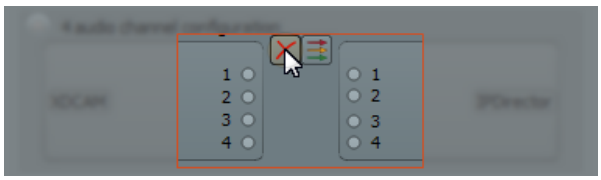


Figure 83: Disconnect all the pins of the 4 audio layout

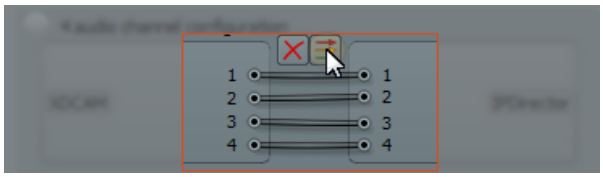


Figure 84: Straight connect all the pins of the 4 audio layout

Audio duplication

You can connect a source pin to more than one destination pin. i.e., the source audio channel will be duplicated to the destination channels.

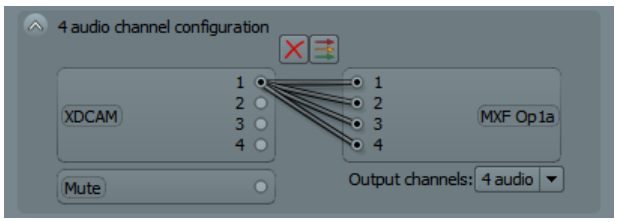


Figure 85: Duplicating channel #1 to the four destination channels

Audio Muting

You can mute a destination channel by connecting the destination pin to the mute source pin.

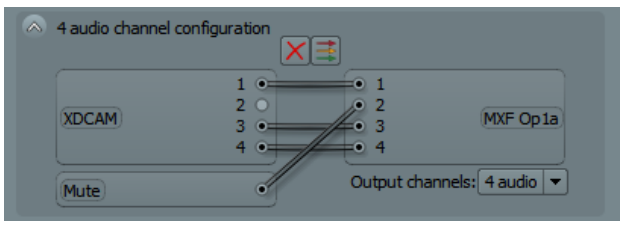


Figure 86: Destination channel #2 is muted

Selecting the number of output audio channels

You can change the destination audio layout independently from the source layout. For example you can force two audio channel sources to become a four or eight channel destination. Conversely, you can force eight audio channel sources to become two or four channel destination. You can change this by selecting the corresponding destination layout in the **"Output channels"** combo box.

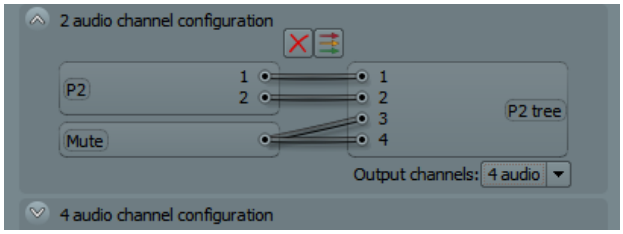


Figure 87: Forcing a two channel source to become a four channel destination.

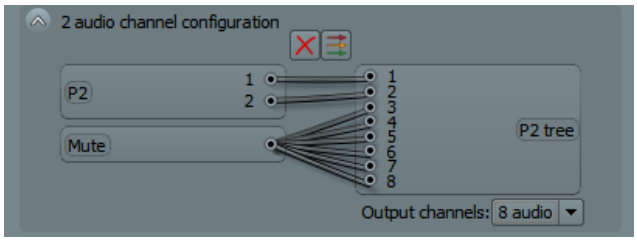


Figure 88: Forcing a two channel source to become an eight channel destination.

XDCAM flat and IPDirector (XDCAM mode) are limited to the four and eight destination layouts.
IPDirector (XF-Series mode) is limited to the eight destination layout.

In XDCAM destination subjects, some layout combinations cannot be performed for some of the types of sequences. For example if you want to force a 8 audio source to 4 audios destination, the routing will be valid for an IMX sequence but will be denied for an XDCAM HD422 sequence at the time of ingest.

Saving an audio routing configuration

Each layout must be completely connected to create a valid configuration. The configuration must be valid in order to be saved.

Figure 89: If any pin is disconnected, the configuration is invalid and saving is prohibited

The save buttons are highlighted when a configuration change should be saved.

Figure 90: A visual hint reminds you to save your changes

If you click on the **[Save as...]** button a popup will appear allowing you to choose the name of the configuration to save. An interactive name validation feature prevents you from typing an invalid or duplicate configuration name.

Figure 91: The "Save configuration as..." dialog lets you choose the name of the configuration to save

Once saved, the configuration is appended to the available configuration list and may be used by any other destination subject. To assign a previously saved audio routing configuration to the current destination subject, simply select it in the **"Current routing configuration"** combo box.

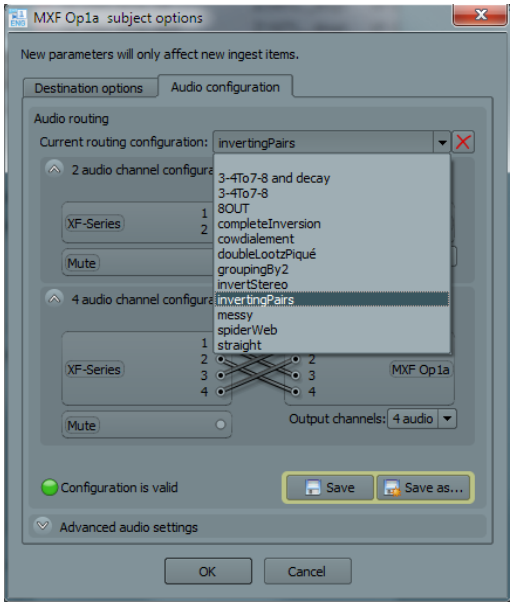


Figure 92: The combo box at the top of the panel lets you choose a previously saved configuration

You can delete a previously saved configuration by clicking on the next to the **"Current routing configuration"** combo box.

Warning
When you delete a configuration, it will delete it for all the subjects that use the same configuration.

If you want to reset your destination subject audio routing to the default configuration, just select the empty field in the **"Current routing configuration"** combo box.

11.11. IMX Aspect Ratio Correction

Sony XDCAM IMX format is a SD format that can handle 4/3 and 16/9 display aspect ratios.

To ensure that the correct IMX aspect ratio is on the ingested material, a new group of options in the XDCAM mode has been added to IPDirector, MXF OP1a, XDCAM Flat, Avid OPAtom and Interplay destination subjects.

This setting only applies for IMX sequences.

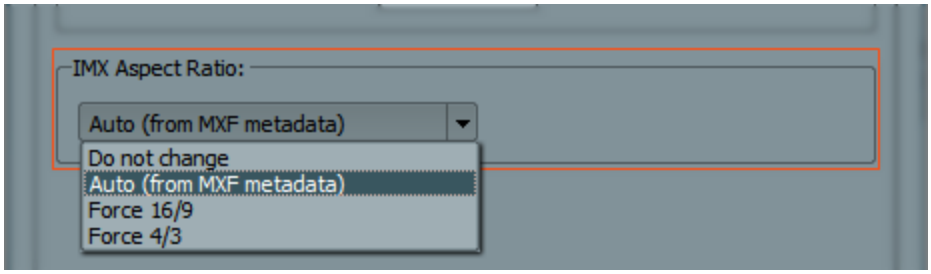


Figure 93: The various available IMX Aspect Ratio policies

You can select from among four Aspect Ratio policies:

- **"Do not change"** means that no IMX aspect ratio enforcing will be performed. The aspect ratio information of the source file will remain unchanged in the IMX essence of the destination file. The MXF aspect ratio metadata will be equal to the IMX essence aspect ratio. This is the default setting.
- **"Auto (from MXF metadata)"** means that the MXF metadata aspect ratio information will be used to force the IMX essence aspect ratio. This is useful when the MXF aspect ratio metadata is the correct one.
- **"Force 16/9"** will force both the IMX essence and the MXF metadata aspect ratio to 16/9.
- **"Force 4/3"** will force both the IMX essence and the MXF metadata aspect ratio to 4/3.

On Interplay and Avid OPAtom destination subjects, the aspect ratio of MXF metadata is always 4/3 on SD files.

11.12. Ingest Stack

11.12.1. Overview

The ingest stack is where you manage most ingest tasks. You can start, pause and cancel jobs. You can reorder the jobs even if the ingest is in progress. You can set the whole stack to pause and resume it. You can also consult the ingest session log if necessary.

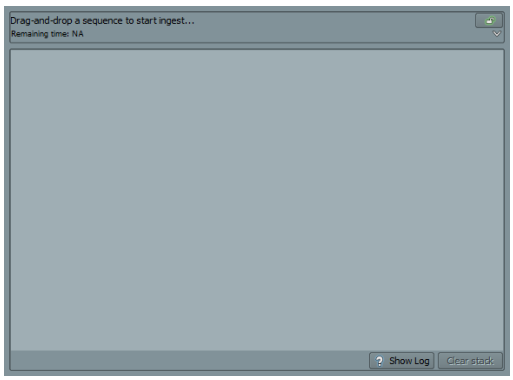


Figure 94: An empty Ingest stack

The ingest stack in its initial state.

The summary zone is on the top of the stack. It displays the status of the overall ingest thread, such as the number of ingests running/done and the estimated remaining time to complete the entire thread.

The ingest stack command buttons, like stack lock and cancel all buttons, are on top-right of the stack.

The current list of ingest items is in the middle.

The ingest stack summary buttons, such as the show log and clear stack buttons, are at the bottom.

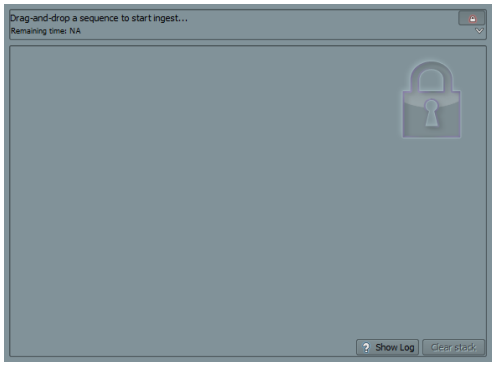


Figure 95: A locked Ingest stack

The ingest stack is locked.

The locked state of the Ingest stack is clearly displayed so that you remember to unlock it when you are ready.

When the stack is locked, the tasks in progress can still continue but pending tasks will not start until the stack is unlocked.

Figure 96: A collapsed Ingest stack

You can collapse the ingest stack by clicking on . The ingest thread will continue running.

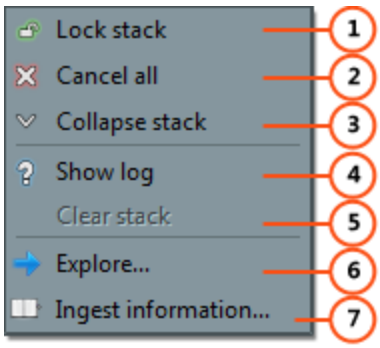
11.12.2. Ingest Stack Buttons

Button	Description
	The 'Stack lock' toggle button allows you to lock/unlock the ingest stack. When locked, the stack will not allow new jobs to start, although tasks in progress can be completed.
	The 'Cancel all' button is used to automatically cancel all the pending/running jobs remaining in the stack. Already finished jobs are not affected. This button is only visible if there are jobs that can be canceled.
	The 'Hide/Show stack' toggle button is used to collapse/restore the ingest stack. When the stack is collapsed, the summary zone of the stack remains visible.

Button	Description
Show Log	The 'Show/Hide log' toggle button lets you show/hide the ingest stack log.
Clear stack	The 'Clear stack' button is used to clear the content of the stack. The ingest log is also cleared. The stack can be cleared only if all ingest jobs have been completed, and are either successful or have been canceled.

11.12.3. Ingest Stack Context Menu

You can call up a context menu by right clicking in the ingest stack. The available options depend on the ingest item selection:



Part	Description
1	Lock/unlock the Ingest stack.
2	Cancel all the pending/running jobs remaining in the stack.
3	Collapse/restore the ingest stack.
4	Show/hide the Ingest stack log.
5	Clear the content of the stack. The ingest log is also cleared.
6	Open a Windows explorer window and select the ingest file.
7	A. Display an information popup with the selected ingest summary.

11.12.4. Ingest Log

The ingest log can be accessed by clicking on the "Show/Hide log" toggle button. It summarizes the status of the ingest jobs of the current thread. Once you clear the ingest stack, the ingest log is cleared as well.

You can save the log to a text file at any time by clicking on the **[Save log to file...]** button.

You can clear the ingest log at any time by clicking on the **[Clear log]** button.

Warning
The automatic ingest error manager relies on the information stored in the ingest log, so if you clear the ingest log the error manager's behavior will be reset. See "Ingest Error Manager" on page 78.

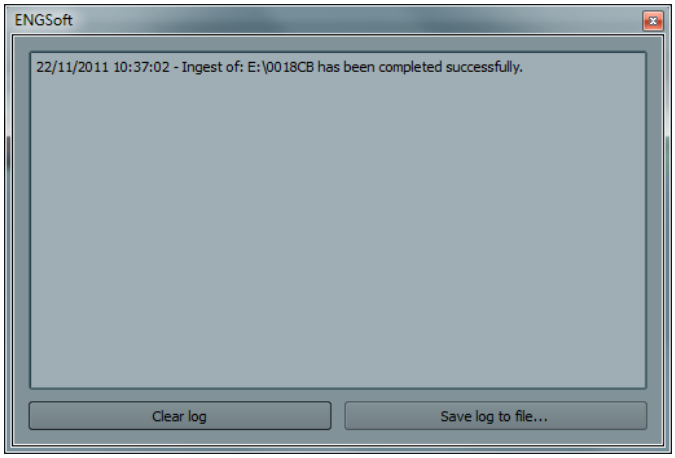


Figure 97: The ingest log panel shows the current ingest thread results log

11.12.5. Ingest Item

Each ingest job is represented by an item in the list. The item displays the details, status and the progress of the job among other information. You can reorder the ingest list at any time by dragging and dropping items to a new position in the list. The higher the item is in the list, the earlier the job is likely to start.

Statuses of an Ingest Job

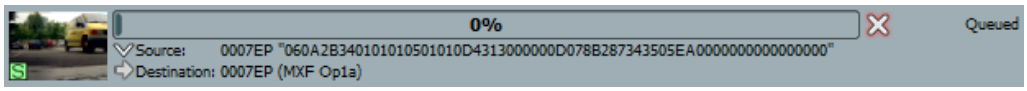


Figure 98: Queued ingest job

This job has not yet started; it is waiting for an ingest slot to become available. You can cancel it at this point.

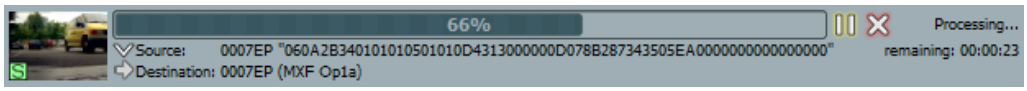


Figure 99: Processing ingest job

This job is running. You can pause or cancel it at this point. An estimated remaining time for the job is displayed at the right side of the item.

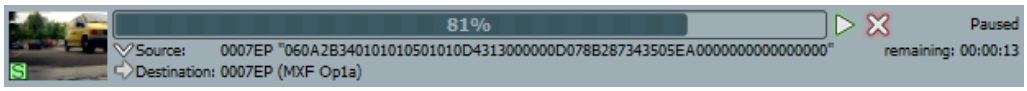


Figure 100: Paused ingest job

This job is paused. You can resume or cancel it at this point. An estimated remaining time for the job is displayed at the right side of the item.

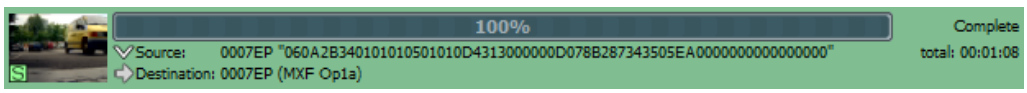


Figure 101: Completed ingest job

This job has been successfully completed. No more action is possible on that particular job. The actual elapsed time for the job is displayed at the right side of the item.

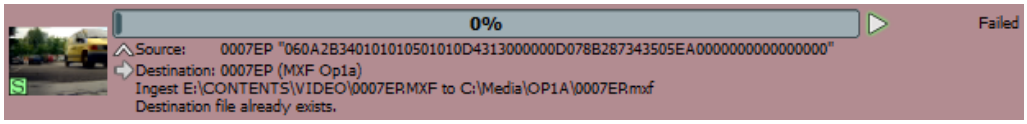


Figure 102: Failed ingest job

This job has failed. The detailed status zone is automatically opened, displaying the cause of the error. You can manually restart it at this point. Note that more complex actions can be performed on that particular job via the Ingest error manager.

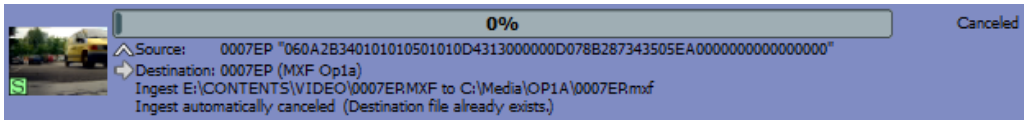


Figure 103: Canceled ingest job

This job has been canceled, either automatically by the Ingest error manager or manually by the user. No more action is possible on that particular job.

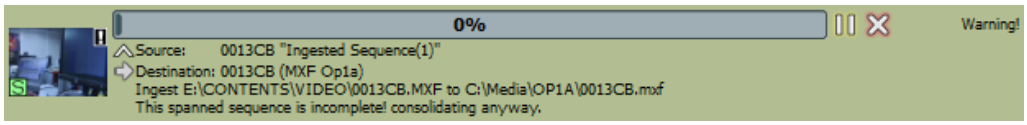


Figure 104: Warning ingest job

In a few rare cases, a warning can be displayed. The item background turns yellow and the detailed status zone is automatically opened displaying the warning message for 5 second. No action is required at this point but you can pause or cancel the job if you want.

Ingest Item Buttons

An ingest item has its own set of buttons so that each ingest job can be managed individually.

Button	Description
	The 'Start/Pause' toggle button lets you pause/resume the ingest job.
	The 'Cancel' button allows you to cancel the ingest job.
	The 'More/Less' toggle button is used to display/hide the detailed status zone. This zone displays the detailed actions or the error status of the task in progress.

Type of ingest

A visual hint is available to know which type of ingest is requested. One of the following icons is present at the left of the destination information list.

Button	Description
	Simple copy: When no rewrapping is needed a simple copy of all necessary files is performed.
	Ingest: When a rewrapping is required.
	Consolidation: When a consolidation of many clips is requested.

11.13. IPDirector Metadata Mapping Issue Handling

It may happen that a source sequence metadata mapped to an IPDirector user field is of an incompatible type. A warning popup is displayed at the time of the ingest.

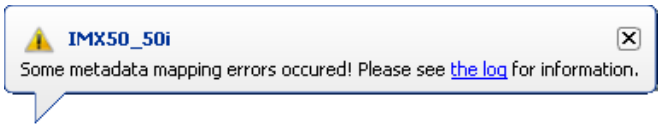


Figure 105: Metadata mapping warning popup.

The popup has a link to the "IPDirectorMetadataMapping.log" file located in "C:\ProgramData\EVS Broadcast Equipment\OpenCube ENGSoft\log\" where descriptions of all recent metadata mapping issues are listed.

An entry in the log looks like this:

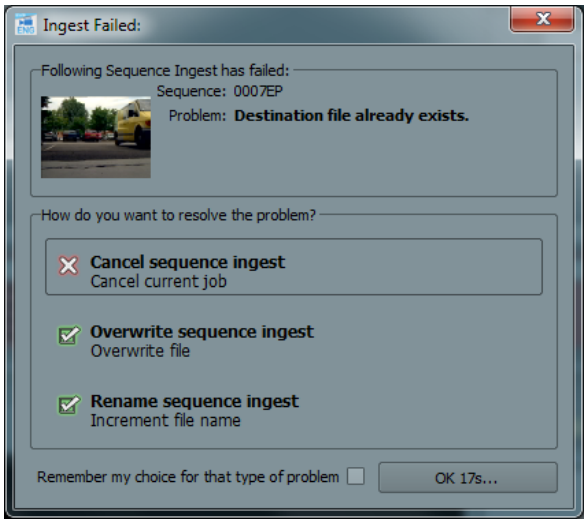
```
Wed Dec 19 14:26:11 2012
IPDirector ingest of SourceClip.mxf with profile News has
raised following errors:
 Metadata parsing error of "Hold Date": cannot convert "Clip
Name (IMX50_50i)" to a date.
```

where SourceClip.mxf is the name of the sequence where the error occurred, News is the name of the profile used to ingest, "Hold Date" is the name of the IPDirector user field and "Clip Name (IMX50_50i)" is the name and value of the source sequence metadata that does not fit.

If such an issue occurs, the ingest will be performed anyway but the erroneous user fields will be blanked out.

11.14. Ingest Error Manager

In the event that an error occurs during an ingest job, a dialog box is displayed, allowing you to choose the action to perform to solve the problem. If you want the engine to automatically apply the same choice if the same problem occurs again, you can check the 'Remember my choice' box. The error and its resolution choice is stored in the ingest log. If you do not provide any answer within 30 seconds, the 'Cancel task' option will be automatically selected.



This zone contains a summary of the faulty sequence and the error that occurred.

This zone shows the proposed actions for the given error.

You can save your choice. Once the countdown is over the selected action is automatically applied.

Figure 106: Ingest error manager dialog

11.15. Manual Renaming Dialog

If your destination subject naming rule has been set to **"Ask me (not available in Auto-Ingest)"** you will be able to specify each new ingest filename at the moment you drop it in the ingest stack.

Note
The manual naming rule is not available in Auto-Ingest.

If you use the manual naming rule, a renaming dialog will prompt you to redefine each dropped ingest destination name.

The left-hand column displays a brief summary of the ingest. The right-hand column proposes a default destination name for the ingest. You can edit each name to change the destination file name.

If you click on the **[OK]** button, the specified names will be applied to each ingest item, the items dropped to the ingest stack and ready to be processed.

If you click on the **[Cancel]** button, no ingest item will be created in the ingest stack.

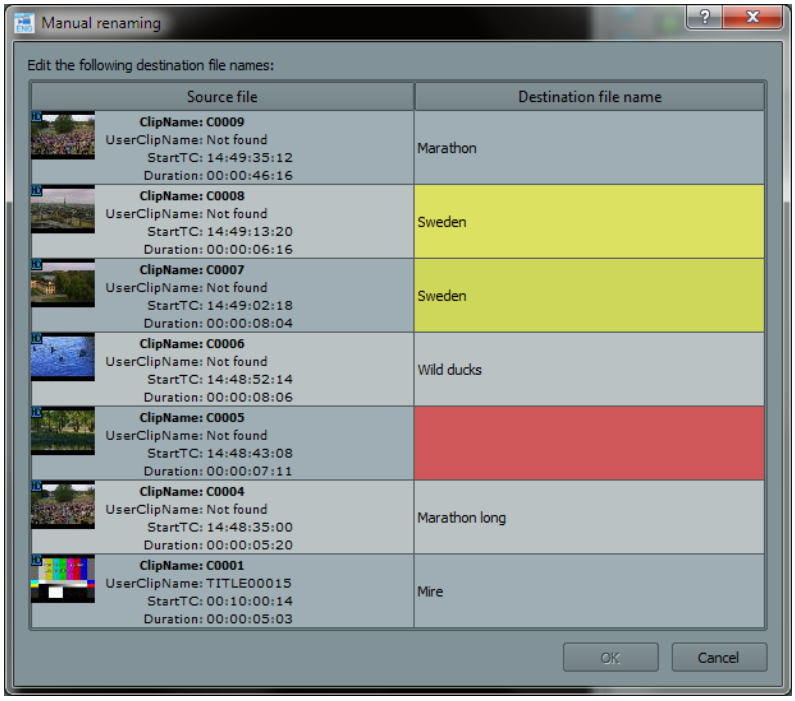


Figure 107: The manual renaming dialog with several items to rename

An interactive name validation will be performed as you type the item names.

If a name is duplicated in the name list, the duplicated entry cells are highlighted in yellow. Though not recommended, duplicated entries are tolerated. If a name conflict occurs at ingest time, the subject conflict policy will be applied. Refer to each subject description for more about their naming rules configuration.

If a name is empty, the corresponding cell is highlighted in red, and the **[OK]** button is grayed out to block the ingest.

11.16. Auto-Ingest

The Auto-Ingest mode is designed to automate the ingest process. All the sequences in the selected media are ingested sequentially. Once the entire media is ingested you can swap media in the device. The ingest process will resume automatically.

To start the Auto-Ingest, all you have to do is to select the source and destination subjects and click on .

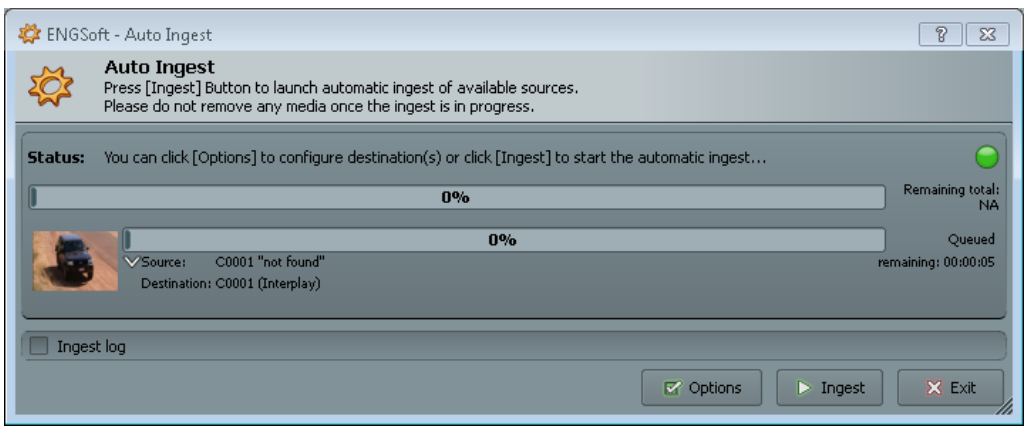


Figure 108: The Auto-Ingest panel in its initial state

Before you start a task, you can change some of the destination subject configurations. The alternate destination subject configuration is local to the auto-ingest process.

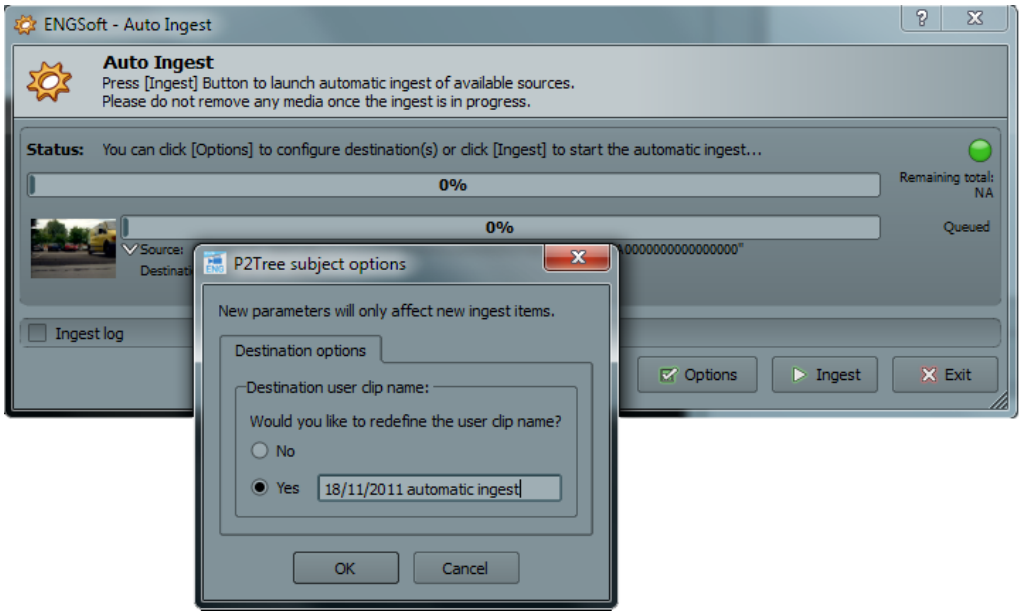
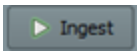


Figure 109: Configuring a P2 Tree destination subject before starting Auto-Ingest

Once you press the 

button, the Auto-Ingest waits for a new medium to be inserted in the selected source subject before it ingests all the sequences it contains. When it has finished, it waits for a new media to be inserted.

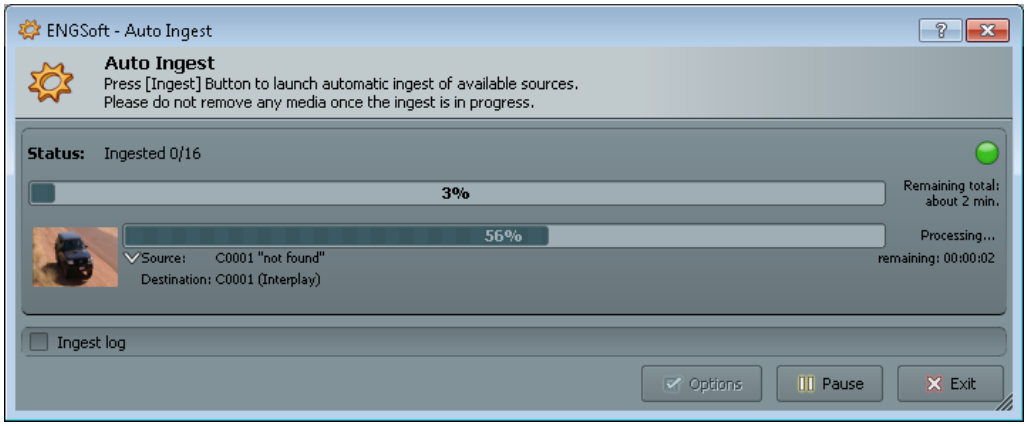


Figure 110: Auto-Ingest processing conversions

The Auto-Ingest window displays the progress of all the sequences and the currently ingested sequence. It also displays the estimated remaining time to complete the current ingest thread.

By clicking on the “Ingest log” checkbox, you can open the ingest log panel which displays the list of ingested sequences and the result of the tasks.

Note
The Auto-Ingest log is separate from the ingest stack log.

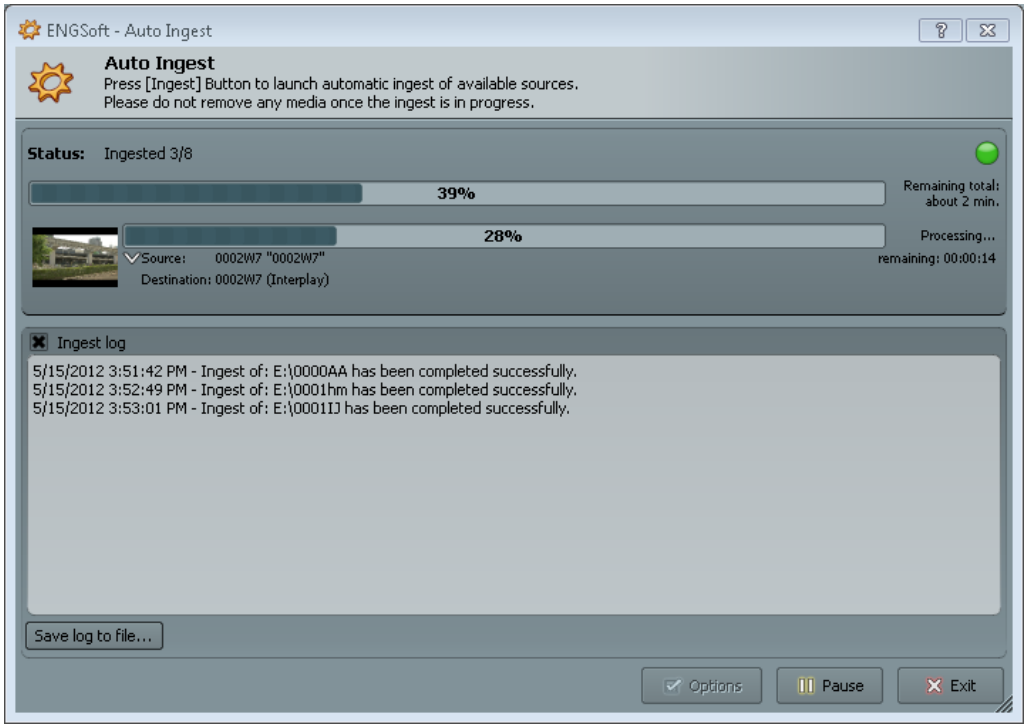

ENGSoft - Auto Ingest
Auto Ingest
Press [Ingest] Button to launch automatic ingest of available sources.
Please do not remove any media once the ingest is in progress.
Status: Ingested 3/8
39%
Remaining total: about 2 min.
28%
Processing...
Source: 0002W7 "0002W7"
remaining: 00:00:14
Destination: 0002W7 (Interplay)
Ingest log
5/15/2012 3:51:42 PM - Ingest of: E:\0000AA has been completed successfully.
5/15/2012 3:52:49 PM - Ingest of: E:\0001hm has been completed successfully.
5/15/2012 3:53:01 PM - Ingest of: E:\0001IJ has been completed successfully.
Save log to file...
Options
Pause
Exit

Figure 111: Auto-Ingest log

When Auto-Ingest has processed all the sequences, it waits for a new media.

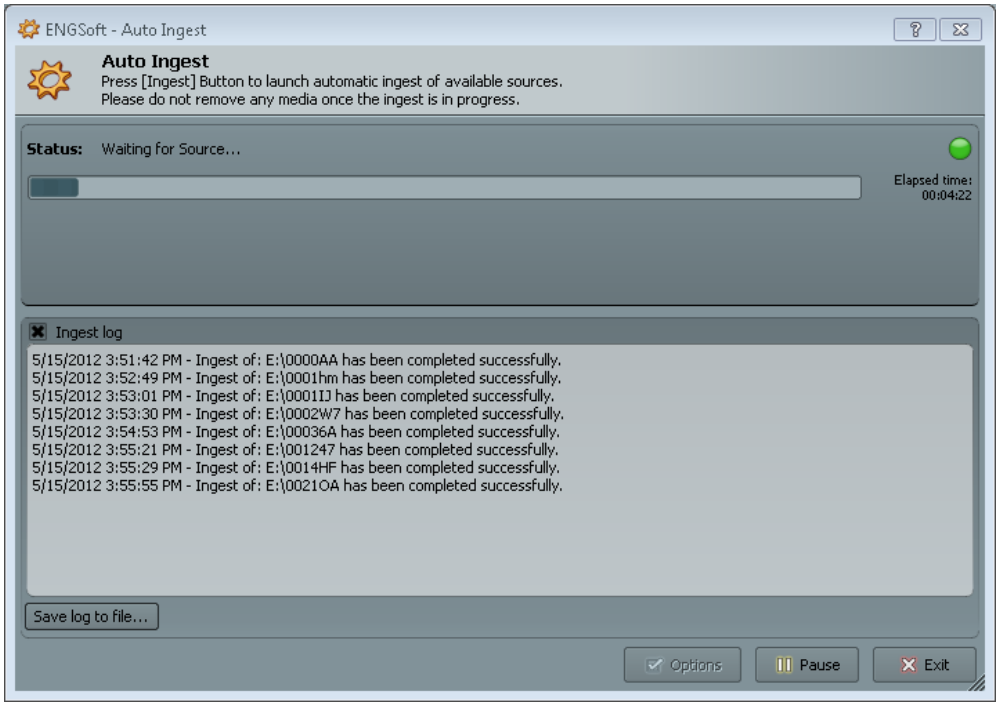

ENGSoft - Auto Ingest
Auto Ingest
Press [Ingest] Button to launch automatic ingest of available sources.
Please do not remove any media once the ingest is in progress.
Status: Waiting for Source...
Elapsed time: 00:04:22
Ingest log
5/15/2012 3:51:42 PM - Ingest of: E:\0000AA has been completed successfully.
5/15/2012 3:52:49 PM - Ingest of: E:\0001hm has been completed successfully.
5/15/2012 3:53:01 PM - Ingest of: E:\0001IJ has been completed successfully.
5/15/2012 3:53:30 PM - Ingest of: E:\0002W7 has been completed successfully.
5/15/2012 3:54:53 PM - Ingest of: E:\00036A has been completed successfully.
5/15/2012 3:55:21 PM - Ingest of: E:\001247 has been completed successfully.
5/15/2012 3:55:29 PM - Ingest of: E:\0014HF has been completed successfully.
5/15/2012 3:55:55 PM - Ingest of: E:\0021OA has been completed successfully.
Save log to file...
Options
Pause
Exit

Figure 112: Auto-Ingest waiting for new source

If an error occurs during an ingest job, the Ingest error manager dialog will popup, asking you which action to perform.

Note
Auto-Ingest is not available on virtual sources and e-VTR devices.

11.17. Consolidation

11.17.1. Overview

There are two ways of performing consolidations in OpenCube ENGSoft, quick consolidation and consolidation via the ingest consolidation list module.

Quick consolidation is an easy, straightforward procedure that allows you to glue/merge multiple sequences into a single one with a simple click.

The ingest consolidation list module was introduced with OpenCube ENGSoft v1.7 and gives you greater control over the OpenCube ENGSoft consolidation feature.

Warning
You can only consolidate sequences that have the same characteristics. Heterogeneous sequences will not be consolidated. An error dialog will appear when you drop heterogeneous sequences in the ingest stack for consolidation.

Warning
On LongGop sequences (such as XDCAM HD422 sequences), the consolidated clip may present one or more of the following artifacts:

- Additional frames may appear at clip transitions and at the end of the consolidation. Consequently, the duration of the consolidation clip may be greater than the sum of its individual parts.
- Frame lags or macroblocks may be visible during clip transitions.

11.17.2. Quick Consolidation

To consolidate sequences, simply select those you want to consolidate in the explorer window and click on to launch the consolidation process. You can consolidate all of the browsed material by clicking on .

The sequences are consolidated in the order in which they were selected in the explorer window.

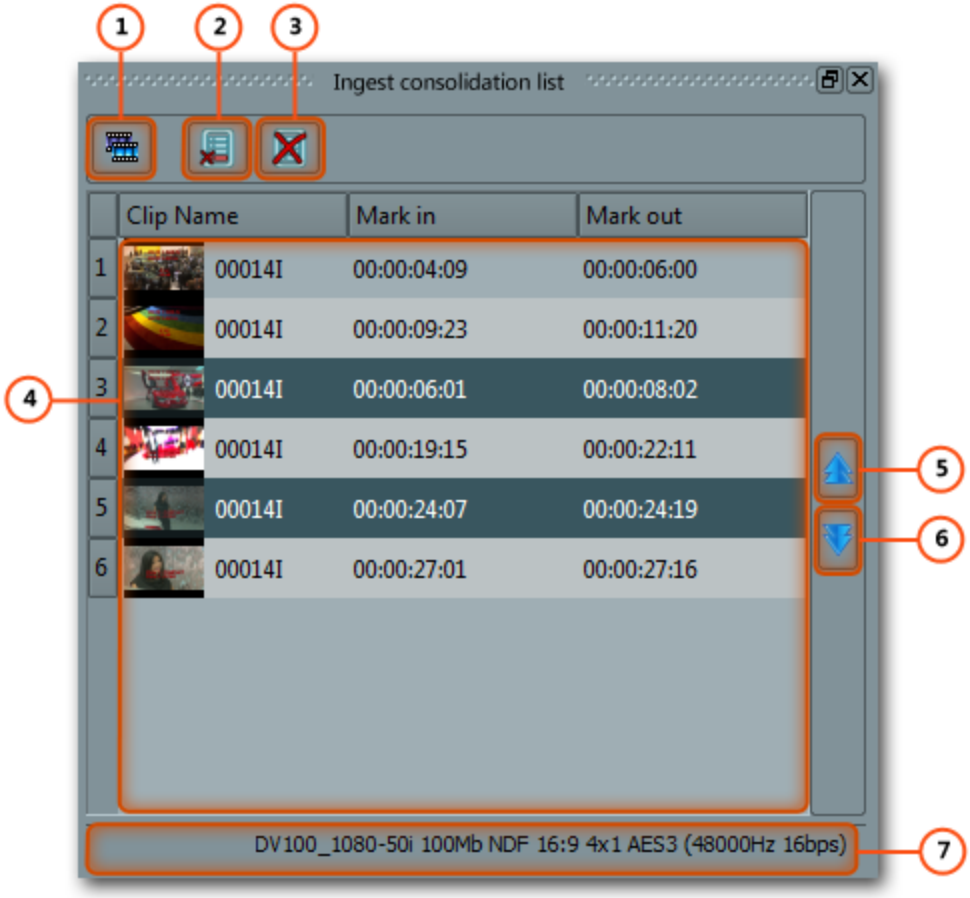
The TC in and metadata of the first sequence in the consolidation list serve as the TC in and metadata of the consolidated clip.

The quick consolidation feature is not available in Auto-Ingest.

The quick consolidation feature allows you to merge subclips: either those marked for subclip in the OpenCube ENGSoft Player or those generated by a previous subclip.

11.17.3. Ingest Consolidation List Module

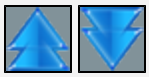
NEW ! The ingest consolidation list module is used to create a list of sequence elements to be consolidated together and to modify it. You can manipulate and modify the elements in the list using the editor.



Part	Description
1	The 'File name/user name' toggle button.
2	The 'Remove selected' button.
3	The 'Remove all' button.
4	The element list. Each element includes a thumbnail, the clip name of the listed sequence and the timecode of the In and Out mark.
5	The 'Move up selected item(s)' button.
6	The 'Move down selected item(s)' button.
7	The information zone, displaying the main characteristics of the clips in the list.

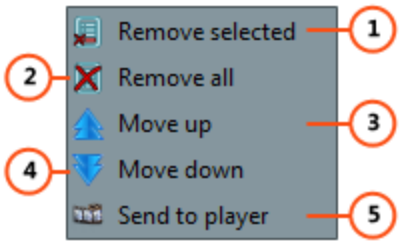
The different command buttons on the top and the side of the panel of ingest consolidation list module are described below:

Button	Description
	The 'File name/user name' toggle button switches the Clip name and the User clip name in the first ingest consolidation list column.
	The 'Remove selected' button removes the selected element(s) from the ingest consolidation list.

Button	Description
	The 'Remove all' button clears the entire ingest consolidation list. The consolidation format is reset.
	The 'Move up' and 'Move down' buttons allows you to move the selected element(s) in the ingest consolidation list up or down one line.

Context menu

You can call up a context menu by right clicking in the explorer window; the options available depend on the sequence selection:



Part	Description
1	Removes the selected element(s).
2	Clears the entire ingest consolidation list. The consolidation format is reset.
3	Move the selected element(s) up one line.
4	Move the selected element(s) down one line.
5	Sends the selected element(s) to the video player. Accessible only if there are elements selected. Only the first selected element will be played back.

Creating Elements in the Ingest Consolidation List

You can drag one or many sequence(s) from the explorer module and drop them in the ingest consolidation list. The subclip for each sequence in the explorer is copied into the ingest consolidation list.

The button in the player allows you to create a new element with the played back sequence in the ingest consolidation list. The subclip set in the player is copied into the ingest consolidation list.

You can create one or more elements based on the same sequence in the ingest consolidation list.

You can change the order of the elements in the ingest consolidation list using the and buttons. The elements are consolidated in the order they appear in the ingest consolidation list.

Note
The number of elements in the ingest consolidation list is limited to 50 items.

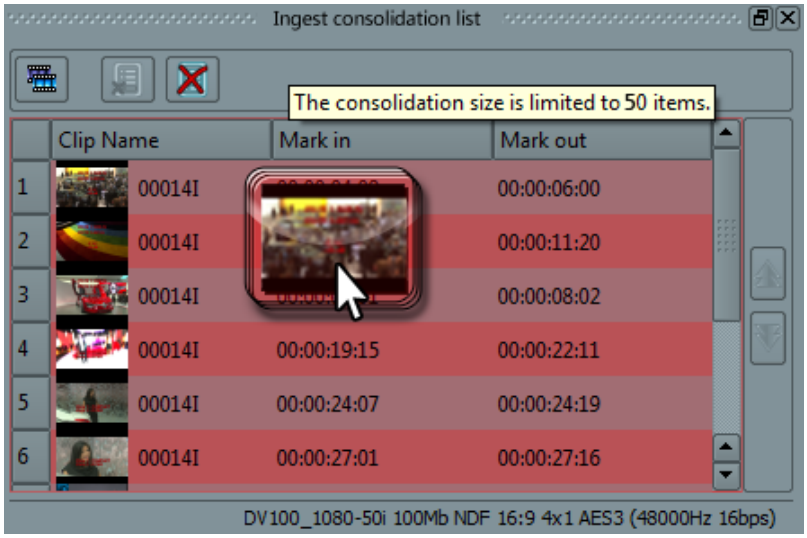


Figure 113: The ingest consolidation list background is highlighted in red if you try to exceed the 50 items limit.

Warning
The ingest consolidation list must be homogeneous; i.e. all of the elements must have the exact same characteristics (Video codec, frame rate, audio quantization...).

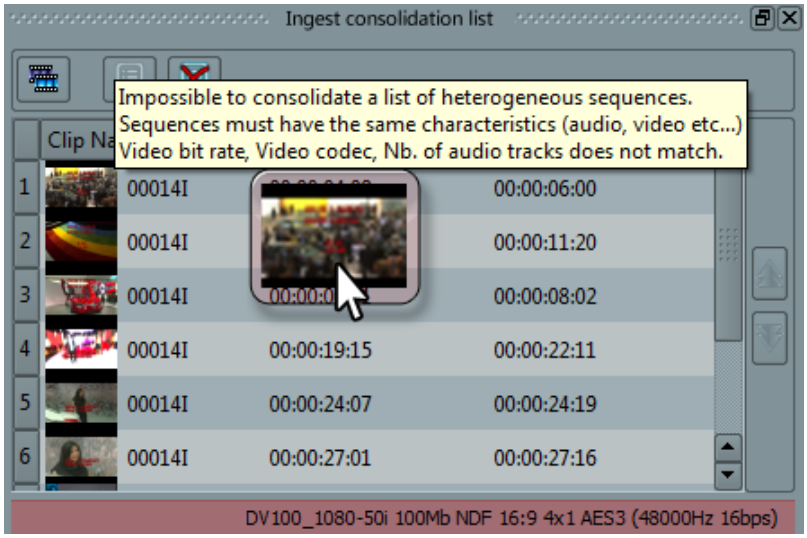


Figure 114: The information zone is highlighted in red if you try to drop an incompatible item

Warning
The ingest consolidation list does not have a load/save mechanism and is lost if you change device mode.

Displaying Elements in the Player

If you double click on an element in the ingest consolidation list, the corresponding sequence is opened for playback in the player.

You can also drag an element from the ingest consolidation list and drop it in the player to open it for playback. If you drag many items from the ingest consolidation list and drop them in the player, only the first selected will be opened for playback.

Two visual hints in the UI can help you to determine if the clip displayed in the player is an ingest consolidation list element or a plain sequence from the explorer module:

- If the clip displayed is an ingest consolidation list element, the player module will have a bright outline around it. If the clip displayed is a plain sequence there will be no outline.

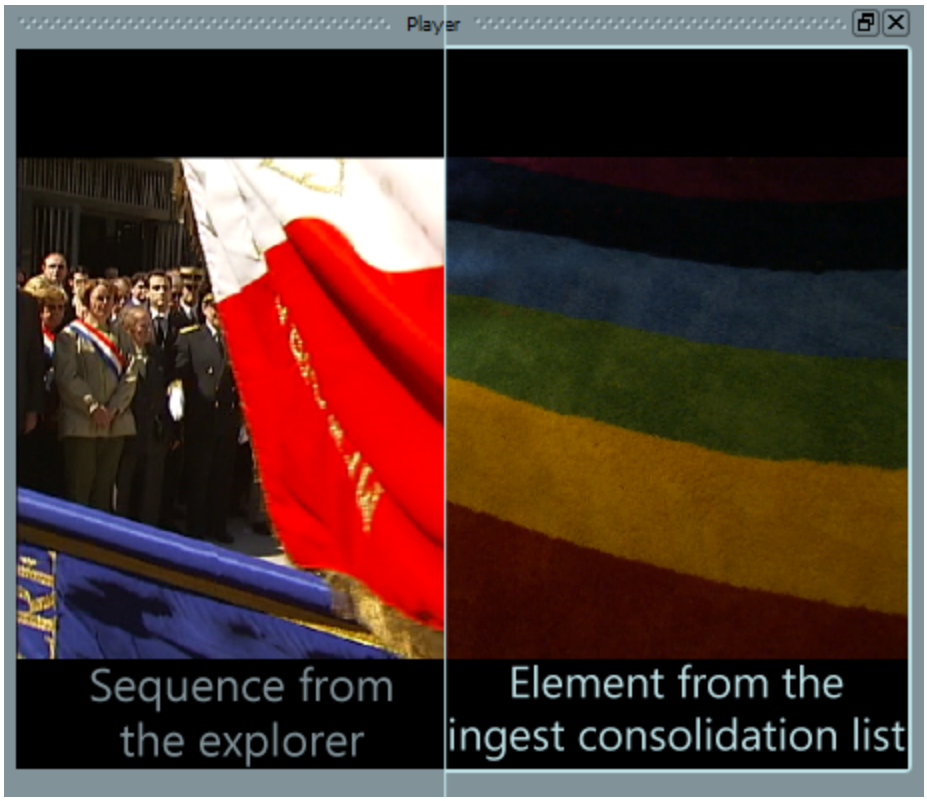


Figure 115: The player's video window is outlined on the right, meaning that an element from the ingest consolidation list is displayed.

- An icon overlay on the thumbnail of the selected element in the ingest consolidation list.

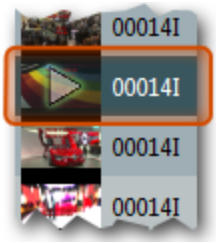


Figure 116: A visual overlay is displayed on the element currently in the player

Modifying Elements

You can modify an element after it has been inserted in the ingest consolidation list by opening it in the player. You can then modify the in and out marks of the element.

If you click on the button in the player it will modify the element selected in the ingest consolidation list.

The ingest consolidation list element overlay will flash to inform you that the in/out changes have been taken into account. The timecode values in the 'Mark in' and 'Mark out' columns will be modified accordingly.

If you click on the button in the player, it will create a new element in the ingest consolidation list.

See "Player Controls" on page 91 for more information on the player controls.

Sending an Ingest Consolidation List to the Ingest

Once the ingest consolidation list is prepared, you can send it to ingest using the button located in the ingest destination panel. See "Destination List" on page 46.

The elements are consolidated in the order they appear in the ingest consolidation list.

Unless stated otherwise in the ingest destination configuration, the start timecode of the consolidation is the Mark in timecode of the first element in the list. The duration of the consolidation is the sum of the duration of each individual element.

The ingest consolidation list is not cleared when you send it to ingest.

Note
The consolidation feature is not available in Auto-Ingest.

12. Player Module

12.1. Overview

The player module allows you to playback individual sequences. You can also set in and out marks on the selected sequence.

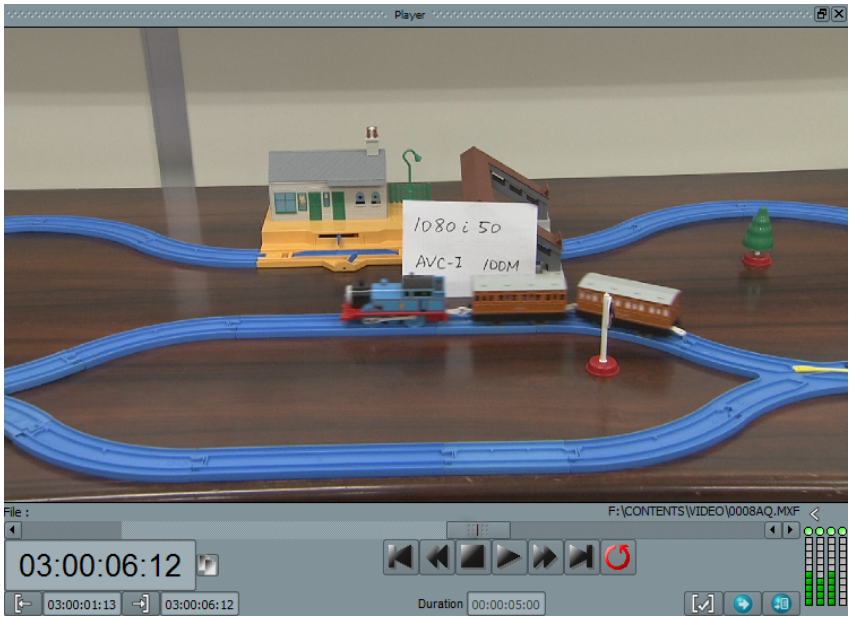
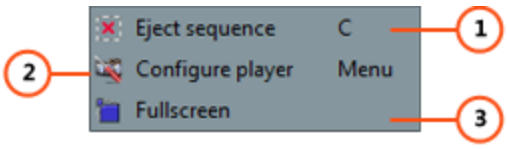


Figure 117: The player module

To load a sequence into the player, you can either double click on it or drag and drop it from the explorer module.

12.2. Context Menu

A context menu will appear if you right-click in the playback window:



Part	Description
1	Removes the currently played sequence and clears the player.
2	Opens the player configuration dialog.
3	Toggles between windowed and fullscreen view.

12.3. Configuration Panel

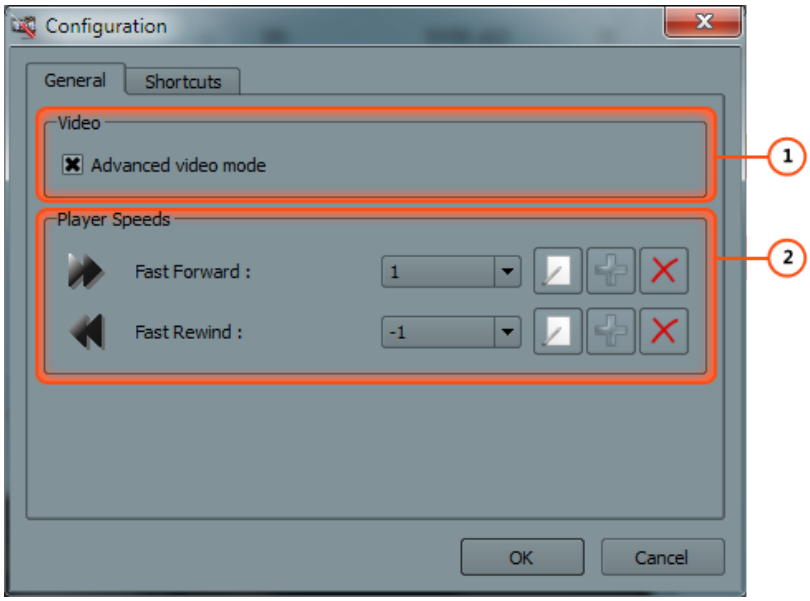
You can open the configuration dialog by clicking on **[Configure player]** in the context menu or by hitting the key **[Menu]**.

12.3.1. General Tab

When checked, the **[Advanced video mode]** enables hardware acceleration for video rendering.

Note
On some hardware or configurations like virtual machines, you may encounter playback issues with hardware acceleration enabled. If you experience any playback disorders - e.g. the sequence is displayed with the wrong field order or the video is displayed upside down - you can troubleshoot it via the player configuration. Open the configuration dialog and uncheck the 'Advanced Video Mode' option to disable the hardware acceleration. Then reload the sequence in the player.

You can also specify your own set of speeds for fast forward and rewind by replacing the default speeds or by adding or removing different speeds to the speed lists. When you click on the and buttons of the player, the playback will loop between these speeds.

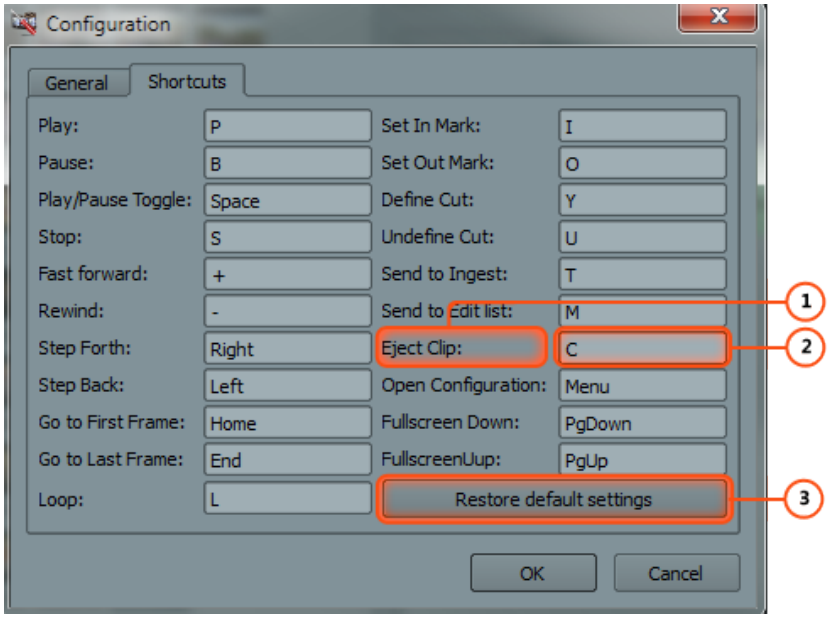


Part	Description
1	Toggles between hardware accelerated video rendering (Advanced) and software compatibility rendering mode.
2	Player speed settings lets you add/remove/modify the forward/rewind playback speeds.

12.3.2. Shortcuts Tab

The shortcuts that can be configured by the player are listed in the **"shortcuts"** tab. You can modify the shortcuts by selecting the field next to the command name. This can be done either by clicking on field or by navigating between fields with the **[Tab]** key. The selected field becomes yellow. The typed in key combination will then be recorded and displayed in the field. If the key combination is already being used for another command, the previous command shortcut is cleared and the corresponding field is selected, allowing you to type another key combination for that command.

You can revert your changes to the factory settings by clicking on the **"Restore default settings"** button.



Part	Description
1	This label shows the name of the player's command.
2	This field shows the shortcut key combination of the command displayed to the left of it. In this case the shortcut key 'C' corresponds to the 'Eject Clip' command.
3	To restore to the factory settings (shown here) click on the 'Restore default settings'.

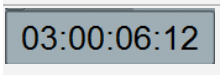
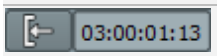
Note
You can use these shortcuts to control the ENGSoft player via a remote control device.

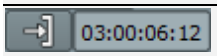
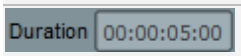
12.4. Player Controls

The player module has a full set of playback commands. You can play forward or backward at any chosen speed; you can cue frame by frame or seek to a given position manually or by timecode. You can also set in and out marks for the selected sequence.

Figure 118: Player's controls

Figure 119: The upper bar shows the name of the video file currently being viewed in the player

Button	Description
	The 'Play/Pause' button plays/pauses the video (Shortcut: Space bar).
	The 'Stop' button stops the video while it is playing.
	The 'Loop' button toggles the playback in loop mode. When the sequence reaches the end, the play automatically restarts from the beginning.
	The 'Go to Start/Go to End' buttons seeks to the start/end of the sequence.
	The 'Fast Rewind/Fast Forward' buttons allows you to change the playback speed of the video. Repeated clicks increase the speed. By default four speeds are available; a fifth click will loop back to the initial speed.
	Enable the new In/Out timecode (the cut) for the video being played.
	Reset the In/Out timecode of the sequence to its original values.
	Send the current sequence to the ingest stack on the selected destination. The cut is taken into account.
NEW !	Send the current sequence to the ingest consolidation list on the selected destination. The cut is taken into account.
	Show / hide the audio level zone.
	The diode icon on an audio level bar allows you to mute/unmute the corresponding audio channel.
	This edit box displays the current video timecode. It can be edited manually so you can enter the timecode you want to reach.
	Copy the current video timecode to the clipboard.
	Display the start timecode edited in the following edit box (the video will play starting from this new timecode). The duration between the initial start timecode and the new one is indicated by a darker color in the seek bar.

Button	Description
	Display the end timecode (the video will stop playing when it is reached). The duration between the initial end timecode and the new one is indicated by a darker color in the seek bar.
	Display the sequence duration or the duration of all sequences loaded in the playlist in slider mode.

12.5. Batch Subclipping

It is not advisable to process the ingest while you play a sequence on an XDCAM Device (due to Blu-ray latency).

If you want to process numerous subclips from the player, you can lock the ingest stack, define your subclips one by one, eject the sequence from player, then unlock the ingest stack.

Note
On Sony ProDisk devices, ENGSoft can only read one file at a time. This limits performance. You cannot play a clip in the player on the device and run ingests at the same time. You must eject the sequence in the player in order to unlock the ingest jobs.

If a device is currently locked for reading by a process and another process is trying to gain access to that same device, a notification popup will be displayed on the device telling you which process has been refused and which one holds the lock.

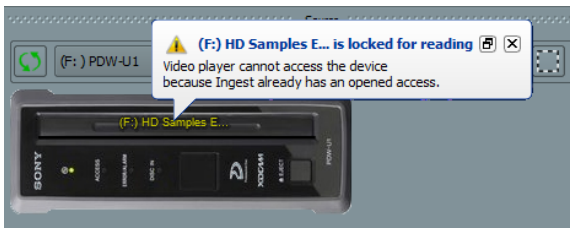

(F:) HD Samples E... is locked for reading
Video player cannot access the device
because Ingest already has an opened access.
(F:) PDW-U1
(F:) HD Samples E...
SONY

Figure 120: The player has been refused access to the device because Ingest is currently accessing it

The user has to wait for the ingest to end before trying to playback a video from the device.

(F:) HD Samples E... is locked for reading
Ingest cannot access the device
because Video player already has an opened access.
(F:) PDW-U1
(F:) HD Samples E...
SONY

Figure 121: The ingest process has been refused access to the device because a video is being played back

The user has to eject the sequence from the player. The ingest process will resume automatically.

13. Sequence Properties

All the properties and attributes of the currently selected sequence are displayed in the sequence properties panel.

You can open the panel by selecting "Properties" in the explorer panel context menu or by selecting **[View]** > **[Sequence Properties]**.

The panel is divided into two parts:

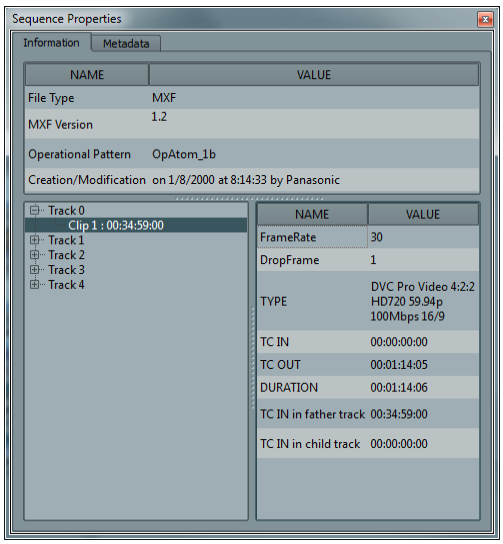


Figure 122: Sequence properties - information tab

The **Information tab** summarizes the MXF file properties such as:

- The MXF operational pattern and version;
- The list of tracks forming the sequence, including audio, video, timecode and metadata tracks;
- The detailed properties of each track.

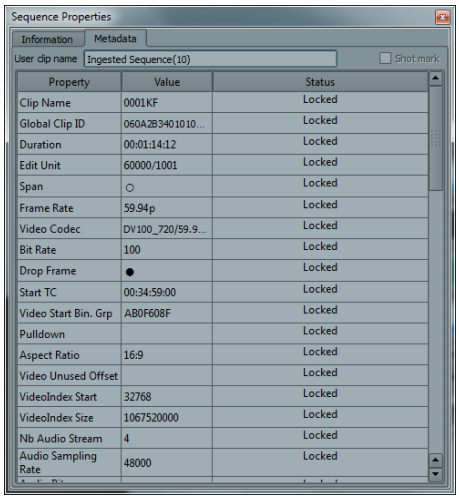


Figure 123: Sequence properties - metadata tab

The **Metadata tab** displays all the available metadata for the current type of sequence.

Each manufacturer type sequence has its own metadata set. Furthermore in XDCAM mode, a user defined set, called **planning metadata set**, is added to the fixed metadata set. See "Enabling XDCAM Planning Support in OpenCube ENGSoft" on page 39 for more about planning metadata.

The following are the sets of metadata supported by manufacturer:

P2	XDCAM	XF-series XF100-XF300-C300
Clip Name	Clip Name	Clip Name
Global Clip ID	Global Clip ID	Global Clip ID
Duration	Duration	Duration
Edit Unit	Start TC	Start TC
Span	Aspect Ratio	Aspect Ratio
Frame Rate	Video Codec	Video Codec
Video Codec	Frame Rate	Frame Rate
Bit Rate	Drop Frame	Drop Frame
Drop Frame	Audio Codec	Audio Codec
Start TC	Nb Audio	Nb Audio
Video Start Bin. Grp	Nb Audio Stream	Nb Audio Stream
Pulldown	Audio Sampling Rate	Audio Sampling Rate
Aspect Ratio	Audio Bits per Sample	Audio Bits per Sample
Video Unused Offset	User Clip Name	User Clip Name
VideoIndex Start	Span	Span
VideoIndex Size	Span Offset	Span Offset
Nb Audio Stream	Span UMID	Span UMID
Audio Sampling Rate	Span Top name	Span Top name
Audio Bits per Sample	Span Top UMID	Span Top UMID
AudioIndex Start	Span Next name	Span Next name
AudioIndex Size	Span Next UMID	Span Next UMID
User Clip Name	Span Prev name	Span Prev name
Data Source	Span Prev UMID	Span Prev UMID
Shot Mark	Volume Path	Volume Path
Creator	Total Size	Total Size
Creation Date	Creation date	Extended Metadata
Last Update Person	Raster size	Raster size
Last Update Date	Planning	Creation Date
Device Manufacturer	**+ Additional set of planning metadata**	ShotMark
Device Serial No.		EventMark
Device Model Name		BitRate
Shooter		Maker
Shoot Start Date		Model
Shoot End Date		SerialNumber
Altitude		Firmware version
Longitude		Pre Record
Latitude		Variable Frame Record
Source		Frame Record
Location		Interval Record
PlaceName		Archived
Program Name		Auto Exposure
Scene No.		White Balance Mode
Take No.		White Balance Preset
Reporter		Color Temperature
Purpose		IR Mode
Object		OK Mark
Memo Voice		Check Mark
Memo Text		Creator
Span Offset		Description
Span Global Shot ID		Altitude
Span Top Name		Location
Span Top Global Clip ID		Longitude
Span Top SerialNo.		Latitude
Span Next Name		
Span Next Global Clip ID		
Span Next SerialNo.		
Span Prev Name		
Span Prev Global Clip ID		
Span Prev SerialNo.		

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